SEIKA6

Braille Display

User Manual
Version 1.42

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Preface

Thank you for purchasing the Seika6 Braille Display.

The Seika6 is a portable 40 cell Braille display with an integrated Braille keyboard.

Before using the Seika6, please read this user manual.

If you have additional questions about using the Seika6, please contact distributors by e-mail, letter, fax, or telephone.

What's new?

1. Get more information of the Seika6 status by pressing Space+Backspace+Enter+i (2-4-7-8+Space). Refer to Chapter 2.0.2.
2. Save As the current editing file to any folder in the MicroSD card or USB Disk. Refer to Chapter 2.1.5.
3. Copy, paste, delete the text block or undo when you editing the file. Refer to Chapter 2.1.13 to 2.1.18.
4. Get the current location when reading or editing the text by pressing Space+= (1-2-3-4-5-6+Space).
5. Reset the default setting by pressing Space+r (1-2-3-5+Space) in the Tools menu.
6. File Find command in the tree list. Refer to Chapter 2.2.5 to 2.2.7
7. The folder and files will be shown in alphabetical order in the tree list.
8. New hot keys in the scientific calculator. Refer to Chapter 2.7.2.
9. Fast way of connnection with iOS, and corrections voiceover shortcut   Refer to Chapter 6.1 and 6.3
10 Add auto power off function. Refer to Chapter 1.3

Safety Precautions

For your own safety and to protect the Seika6 from accidental damage, please read and abide by the following safety precautions.

1. The input voltage of the AC adapter is 100V - 240V, and the output is DC 5V / 1A.

2. Your Seika6 needs to be handled with care. Make sure to handle the unit in a proper manner. Also, the Seika6 is very sensitive to dust. Make sure to keep Seika6 away from dusty environments.

3. Please keep your Seika6 away from a long time in a closed, high temperature environment, such as inside a car on a hot summer day

4. Do not disassemble the Seika6 yourself.

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1. Getting Started

Welcome to the Seika6, an innovative personal productivity system. The Seika6 is a portable 40 cell Braille display with a notetaking feature as well as a suite of additional powerful applications. The Seika6 is compatible with several popular screen reading software programs that are used with mobile phones, PC's, and Apple devices via Bluetooth or USB. The Seika6 also includes the following applications: Notepad, File Management, Book Reader, Clock and Calculator.

1.1 Equipment Checklist

Carefully unpack your Seika6. Save the box and packing materials for future use. Your Seika6 package contains the following items:

- Seika 6 in its leather carrying case
- carrying case with a strap
- Power adapter (the output is 5V/1A)
- DC-IN cable
- USB Cable
- Micro SD card which comes preinstalled in the Seika 6
- USB disk
- Documentation/driver CD
- User manual

1.2 Device description

The Seika 6 total weight is 700g .with dimensions of 13(W) x 4.5(D) x 1.6(H) inches.

The Seika6 can operate from its internal rechargeable battery or from its AC adapter via USB cable.

The Seika6 comes in a leather carrying case. To open the case, lift the flap under the front edge and fold it back.

Place the Seika6 on a flat surface with the Braille display facing you.

On the left side, you'll find from back to front:

- A vertical USB slot which is for the USB disk
- A horizontal slot for the MicroSD card. The MicroSD card is already inside the Seika6. Plugging/unplugging the MicroSD card should be done carefully. The MicroSD card slot has an auto-locking feature - just press, and then release it in order to unlock the card.
- Do not remove the MicroSD card while the device is working. Please turn off the Seika6 before removing the MicroSD card.

On the right side, from back to front you'll find:

- A DC-IN interface
- A USB interface
- A rocker switch to power on/off the Seika 6. To turn the Seika 6 on, press the rocker switch toward you.
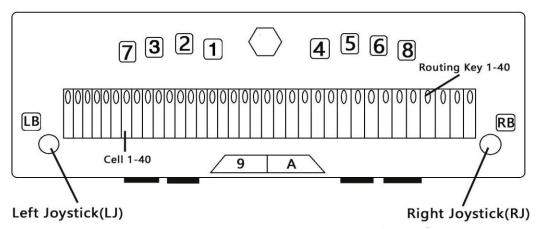
On the top surface of the Seika6 you'll find:

- 40 refreshable braille cells (8 dots)
- Corresponding to the braille cells, there are raised camber ridges through the rear of each cell. These buttons are called the cursor routing keys. They are especially useful when editing a document. In Notepad, for example, when you press a touch cursor button, the cursor moves to that cell. You can then edit the character displayed on that cell. The touch cursor can also be used to select an item from a menu or list.
- Behind the braille cells are the 8 Braille keys, named dot key 1 through 8. In the front of the 40 cells, there are two keys, named Space (key 9, key A). When you are typing, you should place your fingers on these 9 keys in the following manner: Place the index finger, middle finger, ring finger, and pinky finger of your left hand on the left four buttons. Then, place the index finger, middle finger, ring finger, and pinky finger of your right hand on the left four buttons. Finally, place both of your thumbs on the spacebar. The button where you placed your left index finger corresponds with dot 1 in Braille, The button that your left middle finger is on corresponds to dot 2, and button under your left ring finger corresponds to dot 3. the button on which your left pinky finger is placed is the Backspace key (key 7). The button under your right index finger corresponds with dot 4 in Braille, the button under your right middle finger is dot 5, and the button on which your ring finger is placed corresponds with dot 6 in Braille. The button on which your right pinky is placed is the Enter key (key 8). And, the two buttons under your thumbs are the spacebar.
- On each side of the braille display are two streamline shaped keys, these are the Left Button (LB) and Right Button (RB).
- On the same row as the space are two five-direction Navigation joysticks (left, right, up, down and center).

In this manual, they will be referred to as "LJ" for the left joystick and "RJ" for the right joystick.

On the front side, from left to right, you'll find:

- Four keys, the left two keys and the right two keys. They are the same function as Left Button (LB) and Right Button (RB) on the surface

1.3 Power Switch and Battery

As you move your hand along the right side of the case towards the rear, you will find a rocker switch surrounded by a concave rectangular frame. To switch the Seika6 on, press the rocker switch toward you. The Seika6 immediately beeps twice and "notepad" appears on the braille display. This is the first item in the main menu. To turn off the Seika6, press the rocker switch away from you.

If you don't use the Seika6 for approximately 1 minute, it will enter sleep mode. Pressing any key will end the sleep mode, but it is recommended that you momentarily press the Joystick left or Joystick right. This will avoid accidentally inserting characters in an open document. You can set the waiting time from 1 minute to 30 minute, please refer to Chapter 2.8.5 Set sleep.

If you don't use the Seika6 for approximately 1 hours, it will save the active file automatically (the unnamed file will be saved as "temp" file name in the current folder) and turn off to save power, please note that you CANNOT wake it up by pressing keys except restart Seika6.

The Seika6 can operate from its internal rechargeable battery or from its AC adapter. The length of time you can run the Seika6 from a fully charged battery is typically over 10 hours before it becomes flat. Activities like using the USB disk or Bluetooth will increase the drain on the battery.

When the battery level falls below 15%, the Seika6 displays the message, "xx% please charge" and beeps tone "Mi-Lai-Do" suggests you connect the AC adapter. The power socket is the mini USB socket, which is located on the right side, behind the power switch. Plug the smaller end of the USB cable into the Seika6, and plug the larger end of the USB cable into the USB port on the AC adapter. When you connect the AC adapter successfully, it will display "charging xx%" and you will hear beeps tone "Do-Mi" which indicates the battery is charging. When the battery level falls below 5%, the Mini will shut down automatically and beeps tone "Fa-Mi-Lai-Do".It will save the current editing file which named "TEMP0000.TXT" in the root directory.

If the battery is flat and the AC adapter is connected with DC IN socket, the battery will charge in about 4 hours. If you use Seika6 USB socket for charging, the battery will charge in about 10 hours. Charging takes less time if the battery is only partially discharged. You can charge the battery and use the Seika6 simultaneously although the battery may take longer to charge. Please ensure that the battery charges correctly, you can only charge in ambient temperatures between 41 and 95 degrees Fahrenheit, or 5 to 35 degrees Celsius.

1.4 Hardware Specifications

- Memory extension: Micro SD Card and U-disk.
- CPU: ARM
- Battery: Lithium rechargeable battery
- Keyboard: 8-Dot Braille keyboard, 6 scroll keys, 40 cursor routing keys, 2 navigation joysticks keys,2 space keys
- Braille display: 40 refreshable 8-Dot Braille cells
- Wireless: Bluetooth
- Interface: USB, DC-IN, Micro SD card slot, Mini usb socket

2. Basic Functions of the Seika6

2.0.1 How to Use the Commands

All of the commands used on the Seika6 are comprised of different combinations of the Braille keys. In this user manual, the "+" sign is used to indicate key combinations. For example, "Space +z" indicates that the user should press the Space key and letter z braille (dots 1-3-5-6) simultaneously and then release them at the same time. You can execute most commands by pressing the "Enter" button (press Joystick_Center, or press Dot8). If you would like to cancel the execution of any command, or return to the previous status, press "Space +e" (1-5 + Space).

Note: the professional version function is marked by "*" (Star), please contact the distributor to get professional firmware.

2.0.2 General Functions

Upon switching on the unit, it will beep twice, and the first item in the main menu, Notepad, will appear on the braille display.

The main menu includes: Notepad, File Management, Read, USB connect, Bluetooth, Clock, Calculator, Tools. Use the Joystick_Up and Joystick_Down to scroll items in the main menu and press Enter or Joystick_Right or cursor routing keys above the item to select it. You can type the first letter to jump to the corresponding item, for example, press the letter "r" (dots 1-2-3-5) to jump to the "read" mode. The unit will beep alarm once when you jump over the border of the Menu.

NOTE: As the clock and calculator menu have the same first letter, you can type the letter "a" to jump directly to the calculator.

Several menu items have sub menus, for example, if you open "tools" item, the "tools" will appear in an abbreviated word as a father-object "tls" with the sub menu displayed after the punctuation sign >, for example: tls>power. You can run the sub menu "power" by pressing Enter or Joystick_Right or the cursor routing keys above the sub menu "power". Press Joystick_Left, or Backspace, or Space +e (1-5 + Space) or the cursor routing keys above the father-object "tls" to go back to the main menu.

Tree views are used to display the structure of folders and files on the MicroSD card and USB disk. The file name begins with the letter f, and the folder name begins with the letter d. If you press the Enter or Joystick_Right on the folder, it will display the file list within this folder. If you press Enter on the file, it will open the file. If you want to go back to the father folder in the tree view, press the Backspace (7) or Space +e (1-5 + Space) or Joystick_Left. The unit will beep alarm once when you jump over the border of the tree list.

The text, brl file, file and folder name are displayed and edited using 6-dot or 8-dot Braille. You can press Space +p (1-2-3-4 + Space) to switch 6/8 dot braille in the Notepad, Read and tree list. You can also press Space+'8' (2-3-6+Space) to select 8-dot braille table, and press Space+'6' (2-3-5+Space) to select 6-dot braille table. If it switch 6/8 dot successfully, the Seika6 will beep once and braille code will change immediately.

The Seika6 is available in several languages and matching braille tables. Switch between different languages and braille tables by pressing Space + l (1-2-3 + Space) in the main menu. Use Joystick_Up and Joystick_Down to scroll among different languages, such as"Usa", "En", "Italian", "French", "Arabic", "Deutsch", "Croatian", " Norwegian", "Japanese", "Cantonese", "Vietnamese", "Taiwan", "Espaol", "Turkish", "Chinese", "Dutch", "Portuguese", "Swedish" and press Enter to select it. You can also press Space +e (1-5 + Space) to cancel switching languages and braille tables.

You can use Space+Backspace+Enter+i (2-4-7-8+Space) to get more information of the Seika6 status. The information format is: 6/8 dot Braille, beep on or off, battery level, charge status, USB connect or not and the current country braille table. For example, the Seika6 status will display: 6 b>on 50% not charge usb connect>off language:US, which means it is 6-dot braille table, beep is on, the battery level is 50%, the battery is not being charged, the Seika6 is not connected with PC through USB cable.

You can use Space+t (2-3-4-5+Space) to get the current time.

Action	Hot key	Braille
Braille table and language switch	Space + l	1-2-3 + Space
Get the status information	Space+Backspace+Enter+i	2-4-7-8+Space
Get the current time	Space+t	2-3-4-5+Space
Switch 6/8 dot braille	Space +p	1-2-3-4 + Space
Select 6 dot braille	Space+'6'	2-3-5+Space
Select 8 dot braille	Space+'8'	2-3-6+Space
Convert Bes to BRL	Space+enter+t	2-3-4-5+Space

2.1 Notepad

The Notepad application allows you to create and edit simple files; each file size can't exceed 900k bytes. Notepad supports long file names and multi-level folders. If the file name is too long to display at one time, you can use Left Button and Right Button to display the whole file name, file size, modification date and time.

In order to use the Notepad, you must have a MicroSD card in the card slot (which is already installed when you receive the Seika6) or a USB disk in the USB slot. When you start the Notepad application, you need select the MicroSD card or USB disk, and then the Seika6 will display the first file name on the MicroSD card or USB disk. You can use the Joystick_Up and Joystick_Down to scroll the file name and press Enter or cursor routing keys above the file or folder name to open it. You can also press LB or RB to display the file size, modified time and date. You can also press Backspace or Joystick_Left or press Space +e (1-5 + Space) to move back to the father folder. If there is no microSD card or USB disk in the slot, or there is not any file in the folder of MicroSD card or USB disk the Seika6 will display "no content", you can press Backspace or Space +e (1-5 + Space) to go back to the current menu.

NOTE: The file name should not include "|, \, <, >, ?, :, *". The folder name should not include "., |, \, <, >, ?, :, *".

NOTE: The file and folder name also supports 6/8 dot display and file name 6/8 dot inputting.

NOTE: Do not pull out the Micro SD card or USB disk before you turn the Seika6 off.

2.1.1 New File (Space +n; 1-3-4-5 + Space)

This command will close any open document and create a new document or folder which you can immediately edit. The document which you do not save will be prompted to save.

Press Space + n (1-3-4-5 + Space) to create a new file which you can immediately edit, after you input several letters, you can press Space + s (2-3-4 + Space) to save the file in the current folder and the Seika6 will display "input f name.ext" prompt. If you only input the file name and press Enter, the Seika6 will automatically add default extension file name "brl" (for Italy version the default extension file name is txt). You can input at most 100 characters as the file name. You can also press Space +e (1-5 + Space) to cancel input file name and go back to the current editting file.

2.1.2 New Folder (Space + Enter+n; 1-3-4-5-8 + Space)

You can create a new folder by pressing Space+Enter+n (1-3-4-5-8+Space) in the file tree list. It will display "input d name" and you can input at most 8 characters for the folder name.

2.1.3 Close File (Space +e; 1-5 +Space)

This command will close any current document. You can press Space + e (1-5 +Space) to exit the current editting document. You will be prompted to save the document before you close it. The Seika6 will display "save file? y n c", which letter y means save, letter n means not save, letter c means cancel and return to the current editing file. You can press Joystick_Left or Joystick_Right to move the cursor under letter y, n or c and press the Enter key to confirm. You can also input the letter y, n, c, or press the cursor routing button above the letter y, n, c to confirm.

When you exit a file, it will automatically set a bookmark for this file. When you re-open this file next time, it will automatically start at the bookmark location.

2.1.4 Save File (Space +s; 2-3-4 + Space)

This function allows you to save the document using its current name. Press Space + s (2-3-4 + Space), the Seika6 will display "save ok" prompt. You can press any key to return to the current editing document. If you have not named the document yet, you will be prompted "input f name.ext", after input the file name and extension name, and press Enter, you will return to the current editing document. If you only input the file name and press Enter, the Seika6 will automatically add default extension file name "brl" (for Italy version the default extension file name is txt). You can also press Space +e (1-5 + Space) to cancel creating a file name and continue editing the current file.

2.1.5 Save As (Space + Enter + s; 2-3-4-8 + Space)

This command allows you to save the document under a different folder. Press Space + Enter + s (2-3-4-8 + Space) to go to the folder tree, and select the right folder in which you want to save the file, then you can press Space + Enter + s (2-3-4-8 + Space) again to confirm saving at the current folder and return to current editing file. Press

Space +e (1-5 + Space) to cancel "save as" command.

2.1.6 Fast Quit (Space +q; 1-2-3-4-5 + Space)

This command closes any current editing document and returns to the main menu. The document which you do not save will be prompted to save before quit.

When you exit a file, it will automatically set a bookmark for this file. When you re-open this file next time, you will be your previous position in the document.

2.1.7 Find (Space +f; 1-2-4 + Space)

This command allows you to search backwards (to the top direction) or forwards (to the end direction) for a character string starting from the cursor location. Once the character string is found you will be taken to that position. To execute this command, press Space+ f (1-2-4 + Space), the Seika6 will display "input find text", you can type in the text that you want to find and press Enter to start the search. If there is no text that matched what you typed in, the cursor does not move and the Seika6 displays "not found" in Braille.

2.1.8 Find Next (Space+Enter+f; 1-2-4-8+Space)

This command triggers a search with the same word you input in Find command moving to the end of the document. If you have not run Find command before, the Seika6 will beep alarm once.

2.1.9 Find Previous (Space +Backspace+f; 1-2-4-7 + Space)

This command triggers a search with the same word you input in the Find command moving to the beginning of the document. If you have not run Find command before, the Seika6 will beep alarm once.

2.1.10 Set Mark (Space + m; 1-3-4 + Space).

This command marks the cuttent position and allows you return to the same position even after the document has been closed and re-opened. To execute this command, move the cursor to the location at which you want to set a bookmark, and press Space+m. The bookmark position is kept in a hidden file on the MicroSD card or USB disk.

You can set up at most 10 marks in a document on the Seika6.

2.1.11 Jump to Mark (Space + j; 2-4-5 + Space)

This command will take you to the bookmark position.

If you want to go to the next bookmark press Space+j or Space+enter+j. If you want to go to previous mark, press Space+Backspace+j (2-4-5-7+Space). The Seika6 will beep alarm once when there is not any more bookmark.

2.1.12 Delete Mark (Space+Enter+d; 1-4-5-8 + Space)

When you jump to a Bookmark, press Space+Enter+d (1-4-5-8 + Space), then the Bookmark will be deleted.

2.1.13 Select Text Block (Space+Enter; 8 + Space)

The command allows you to select a text block that you want to copy, paste or cut. When you use the Select command, the dot 7, 8 will be up below the text block to indicate what text is being selected.

To select text in a document, place your cursor on the location at which you want to start selecting text, Press Space+Enter, then all dots in the current letter will flicker. The end of your selection is the position at which you place your cursor and pressing Space+Enter again.

Press Space+Backspace (7+Space) can cancel the beginning of selected text and can also cancel the selected text block. Press routing button can cancel the selected text block.

2.1.14 Text Copy (Space+c; 1-4 + Space)

To copy the selected text to the clipboard, press Space+c (1-4+Space).

2.1.15 Text Paste (Space+v; 1-2-3-6+Space)

To paste the text from the clip board to your current cursor location, press Space+v (1-2-3-6+Space).

2.1.16 Text Cut (Space+x; 1-3-4-6+Space)

To cut the selected text to the clipboard, press Space+x (1-3-4-6+Space).

The difference between Cut and Copy is that if you execute the Cut command, the selected text is moved to the clipboard and the selected text is removed from the document. The Copy command copies the selected text to the clipboard, and the selected text remains in the document.

2.1.17 Text Delete (Backspace, Space+d; 7, 1-4-5+Space)

Delete previous character, press "Backspace" (7). Delete next character, press Space+d (1-4-5+Space). And you can use Backspace (7) or Space+d (1-4-5+Space) to delete the text block after you select it.

2.1.18 Undo (Space+z; 1-3-5-6+Space)

You can undo cut, paste and delete text command by pressing Space+z (1-3-5-6+Space). If you want to cancel the undo operation you should press Space+z again.

2.1.19 Cursor Location (Space + =; 1-2-3-4-5-6+Space)

While editing or reading a document, you can check the cursor location by pressing Space + = (1-2-3-4-5-6 + Space). The Seika6 will display the percentage in braille.

2.1.20 File Copy (Space+c; 1-4+Space), Cut (Space+x; 1-3-4-6+Space) and Paste (Space+v; 1-2-3-6+Space)

These commands allow you copy, cut and paste file between different folders, and also between Micro SD card and USB disk.

In the file tree list, press Space+c (1-4+Space) to copy the file to the clipboard, press Space+x (1-3-4-6+Space) to cut the file to the clipboard, and press Space+v (1-2-3-6+Space) to paste the file from the clipboard to your current folder location..

2.1.21 File Delete (Space + d; 1-4-5 + Space)

When you press command Space + d (1-4-5 + Space) on the file or folder name list, the Seika6 will display "delete?", you can press Enter to delete file or folder, or press Space +e (1-5 + Space) to cancel the delete command. If you delete a folder, all files in this folder will also be deleted.

2.1.22 Rename (Space +r; 1-2-3-5 + Space)

Press Space +r (1-2-3-5 + Space), the Seika6 will prompt you to input the new name for the file or folder. After editing the name, press Enter to save the new file or folder name. If there is the same file or folder name in the current folder, the Seika6 will display "exists, replace?", press Enter to replace, press Space +e (1-5 + Space) to cancel renaming the file. The maximum characters of the folder name are 8 letters.

2.1.23 Auto scroll (Space + Right Joystick_Right)

The auto scroll command allows you scroll the text automatically. You can enable the auto scroll command by pressing Space + Right Joystick_Right, and stop the auto scroll by pressing Enter. Press the Right Joystick_Right to increase the scroll speed and press the Right Joystick Left to decrease the scroll speed.

Braille and Hot Key Summary

Action	Hot key	Braille
Space		9, A, 9A
Backspace		7
Enter	Joystick_Center	8
Escape	Space + e	1-5 + Space
Fast exit to main menu	Space + q	1-2-3-4-5 + Space
New file	Space + n	1-3-4-5 + Space
New folder	Space + Enter+n	1-3-4-5-8 + Space
Rename	Space +r	1-2-3-5 + Space
Save file	Space + s	2-3-4 + Space
Save as file	Space + Enter + s	2-3-4-8 + Space
Toggle 6/8 dots	Space + p	1-2-3-4 + Space
Select 6 dot braille	Space+'6'	2-3-5+Space
Select 8 dot braille	Space+'8'	2-3-6+Space
Display current time	Space + t	2-3-4-5 + Space
Get current status	Space+Backspace+Enter+i	2-4-7-8+Space
Begin auto scroll	Space + Right Joystick_Right	
Stop auto scroll	Enter	8
Increase auto scroll speed	Right Joystick_Right	
Decrease auto scroll speed	Right Joystick Left	

Edit Commands:

Action	Hot key	Braille
Dot input key		1 through 8
Space		9, A, 9A
Backspace		7
Enter	Joystick_Center	8
Close and exit file	Space + e	1-5 + Space
Delete one character	Space + d	1-4-5 + Space
Find	Space + f	1-2-4 + Space
Find Next word	Space+Enter+f	1-2-4-8+Space
Find Previous word	Space+Backspace+f	1-2-4-7+Space
Set Mark	Space + m	1-3-4 + Space
Delete Mark	Space+Enter+d	1-4-5-8 + Space
Jump to Mark	Space + j	2-4-5 + Space
Delete Mark	Space+Enter+d	1-4-5-8 +Space
Jump to Next mark	Space+Enter+j	2-4-5-8 + Space
Jump to Previous mark	Space+Backspace+j	2-4-5-7+Space

Set the text block beginning and end	Space+Enter	8+Space
Cancel the selected text block	Space+Backspace	7+Space
Set the end	Space+Enter	8+Space
Cut	Space+x	1-3-4-6+Space
Delete	Space+d	1-4-5 + Space
Copy	Space+c	1-4+Space
Paste	Space+v	1-2-3-6+Space
Undo	Space+z	1-3-5-6+Space
Cursor Location	Space+=	1-2-3-4-5-6 + Space

Navigation Commands:

Action	Hot key	Braille
Pan Left (Scroll up one display length)	LB	
Pan Right (Scroll down one display length)	RB	
Scroll up five display length	Space + LJ_Left	1-3 + Space
Scroll down five display length	Space + LJ_Right	4-6 + Space
Move to next word	LJ_Right	5 + Space
Move to previous word	LJ_Left	2 + Space
Cursor goes to beginning of previous sentence	RJ_Up	1 + Space
Cursor goes to beginning of next sentence	RJ_Down	4 + Space
Cursor goes to beginning of current sentence		1-4 + Space
Cursor goes to beginning of previous paragraph	LJ_Up	2-3 + Space
Cursor goes to beginning of next paragraph	LJ_Down	5-6 + Space
Cursor goes to beginning of current paragraph		2-3-5-6 + Space
Cursor goes to beginning of document	Space + LJ_Up	1-2-3 + Space
Cursor goes to end of document	Space + LJ_Down	4-5-6 + Space
Cursor goes left	RJ_Left	3 + Space
Cursor goes right	RJ_Right	6 + Space
Cursor goes to corresponding cell	Routing button1 through 40	

2.2 File Manage

This function enables you to manage the files and folders in the Micro SD card or USB disk. The filemange has two sub menus, SD Card and USB disk. If there is no microSD card or USB disk in the slot, or there is not any file in the folder of the microSD card or USB disk, the Seika6 will display "no content", you can press Backspace or Space +e (1-5 + Space) to go back to the current menu.

This function enables you to browse in the file tree list, you can use Joystick_Up and Joystick Down to scroll through different files and folder, and you can also press LB or RB to display the file size modified time and date. Press Enter or Joystick_Right in the File Manage menu to open the folder or the file.

2.2.1 New File (Space+n; 1-3-4-5+Space) and New Folder (Space +n+enter; 1-3-4-5 + Space+enter)
Regarding this function, please refers to chapter 2.1.1 and 2.1.2

2.2.2 File Copy (Space+c; 1-4+Space), Cut (Space+x; 1-3-4-6+Space) and Paste (Space+v; 1-2-3-6+Space)
Regarding this function, please refers to chapter 2.1.20

2.2.3 File Delete (Space + d; 1-4-5 + Space)
Regarding this function, please refers to chapter 2.1.21

2.2.4 File Rename (Space +r; 1-2-3-5 + Space)
Regarding this function, please refers to chapter 2.1.22.

2.2.5 File Find (Space+f; 1-2-4+Space)
Press Space+f (1-2-4+Space) in the tree list, Seika6 will prompt you to input file name key word. After you type in the file name key word, press Enter, Seika6 will display the matching file. If there is no matching file, Seika6 will beep alarm once.

2.2.6 File Find Next (Space+f+enter; 1-2-4+Space+enter)
If you want to find the next file contains the key word which you already type in, you can press Space+Enter+f (1-2-4-8+Space). If you have not run File Find command before, the Seika6 will beep alarm once. If there is no matching file, Seika6 will beep alarm once.

2.2.7 File Find Previous (Space+f+Backspace; 1-2-4+Space+Backspace)
If you want to find the previous file contains the key word you already type in, you can press Space+Backspace+f (1-2-4-7+Space). If you have not run File Find command before, the Seika6 will beep alarm once. If there is no

matching file, Seika6 will beep alarm once.

File Manage Commands:

Action	Hot key	Braille
Create a new file	Space+ n	1-3-4-5 + Space
Create a new folder	Space+ Enter +n	1-3-4-5-8 + Space
Delete file or folder	Space+d	1-4-5 + Space
Rename file or folder	Space+r	1-2-3-5+ Space
File copy	Space+c	1-4+Space
File cut	Space+x	1-3-4-6+Space
File paste	Space+v	1-2-3-6+Space
File find	Space+f	1-2-4+Space
File find next	Space+Enter+f	1-2-4-8+Space
File find previous	Space+Backspace+f	1-2-4-7+Space

2.3 Read

The Read function enables you to read the files in the USB disk or Micro SD card, and there is no limit of the file size in read function. In order to use the Read function, you need to place a Micro SD card in the card slot or a USB disk in the USB slot. If there were no MicroSD card and USB disk in the slot, the unit will display "no content". The Seika6 can read the brl, brf, bes, txt files and so on. The Seika6 supports long file names and multi-level folders. If the file name is too long to display at one time, you can use LB and RB to display the whole file name, file size, modification date and time. When you exit the file, the bookmark will be added in the current place automatically.

NOTE: Support the maximum of read .bes file is 1MB.

2.3.1 Auto scroll (Space + Right Joystick_Right)

The auto scroll command allows you scroll the text automatically. You can enable the auto scroll command by pressing Space + Right Joystick_Right, and stop the auto scroll by pressing Enter. Press the Right Joystick_Right to increase the scroll speed and press the Right Joystick Left to decrease the scroll speed.

2.3.2 Close File (Space +e; 1-5 +Space)

This command will close any open document.

When you exit a file, Seika6 will automatically set a bookmark. When you open this file next time, it will automatically start at the mark location.

2.3.3 Fast Quit (Space +q; 1-2-3-4-5 + Space)

This command closes any open document and returns to the main menu.

When you exit a file, Seika6 will automatically set a bookmark. When you open this file next time, it will automatically start at the mark location.

2.3.4 Find (Space +f; 1-2-4 + Space)

This command allows you to search backwards (to the top direction) or forwards (to the end direction) for a character string starting from the cursor location. Once the character string is found you will be taken to that position. To execute this command, press Space+ f (1-2-4 + Space), the Seika6 will display "input find text", you can type in the text that you want to find and press Enter to start the search. If there is no text that matched what you typed in, the cursor does not move and the Seika6 displays "not found" in Braille.

2.3.5 Find Next (Space+Enter+f; 1-2-4-8+Space)

This command triggers a search with the same word you input in Find command moving to the end of the document. If you have not run Find command before , the Seika6 will beep alarm once.

2.3.6 Find Previous (Space +Backspace+f; 1-2-4-7 + Space)

This command triggers a search with the same word you input in the Find command moving to the beginning of the document. If you have not run Find command before , the Seika6 will beep alarm once.

2.3.7 Set Mark (Space + m; 1-3-4 + Space).

This command marks the current location in the document. This function allows you to return to the same position within a document even after it has been closed and re-opened. The mark position is kept in a hidden file on the Micro SD card or USB disk.

You can set up at most 10 marks in a document on the Seika6.

2.3.8 Jump to Mark (Space + j; 2-4-5 + Space)

This command will take you to the mark position.

If you want to go to the next mark, press Space+j (2-4-5+Space) or Space+Entere+j (2-4-5-8+Space). If you want to go to previous mark, press Space+Backspace+j (2-4-5-7+Space).

Note: Do not pull out the Micro SD card or USB disk before you turn the Seika6 off.

Read Commands:

Action	Hot key	Braille
Pan Left (Scroll up one display length)	LB	
Pan Right (Scroll down one display length)	RB	
Scroll up five display length	Space + LJ_Left	1-3 + Space
Scroll down five display length	Space + LJ_Right	4-6 + Space
Toggle 6/8 dots	Space + p	1-2-3-4 + Space
Select 6 dot braille	Space+'6'	2-3-5+Space
Select 8 dot braille	Space+'8'	2-3-6+Space
Toggle Grade 1/Grade 2 Braille (only for English txt document)	Space + g	1-2-4-5+ Space
Escape	Space +e	1-5 + Space
Begin auto scroll	Space + Right Joystick_Right	
Stop auto scroll	Enter	8
Increase auto scroll speed	Right Joystick_Right	
Decrease auto scroll speed	Right Joystick Left	
Fast exit to main menu	Space + q	1-2-3-4-5 + Space
Display current time	Space + t	2-3-4-5 + Space
Find	Space + f	1-2-4+ Space
Find Next	Space+Enter+f, LJ_Up + RJ_Right	1-2-4-8+Space
Find Previous	Space +Backspace+f; LJ_Up + RJ_Left	1-2-4-7 + Space
Set Mark	Space + m	1-3-4 + Space
Delete Mark	Space+Enter+d	1-4-5-8 + Space
Jump to Mark	Space + j	2-4-5+ Space
Jump to Next mark	Space+Entere+j	2-4-5-8+Space
Jump to Previous mark	Space+Backspace+j	2-4-5-7+Space
Go to beginning of previous sentence	RJ_Up	1 + Space
Go to beginning of next sentence	RJ_Down	4 + Space
Go to beginning of current sentence	Space+c	1-4+ Space
Go to beginning of previous paragraph	LJ_Up	2-3 + Space
Go to beginning of next paragraph	LJ_Down	5-6+ Space
Go to beginning of document	Space + LJ_Up	1-2-3+ Space
Go to end of document	Space + LJ_Down	4-5-6 + Space

NOTE: the hot key of 'Go to beginning of current sentence' is the same as Copy command, Space+c, when you already select text block successfully, then Space+c run the Copy command, otherwise Space+c will move the cursor to the beginning of the current sentence.

2.4 USB connect mode

This application will enable you to use your Seika6 as a braille display with braille input keyboard. You need connect the USB cable and launch the screen reader on the PC. The Seika6 supports most of screen reader software, such as JAWS, Window-Eyes, NVDA, VoiceOver and so on.

Once this application starts, the Seika6 will display "wait connect…". Then you can start your screen reading software.

If you already set up the USB connection successfully, there is a fast way to set up connection again. After you start the Seika6, please DO NOT touch any keys, connect the USB cable and to launch the screen reader on the PC.

2.5 Bluetooth mode

This application allows you to set up the Bluetooth connection between the Seika6 and your cell phone. Once this application is started, the Seika6 will display "wait connect...", two seconds later, it will display "btname>tsm ****", where **** is the Bluetooth serial number of Seika6. When you are asked to input the Seika6 Bluetooth pin code, enter "0000" to set up the connection.

If you already set up the Bluetooth connection successfully, there is a fast way to set up connection again. After you power on the Seika6, please DO NOT touch any keys, Seika6 will open the bluetooth and wait connection. So you can launch the screen reader on your cell phone and set up connection with Seika6.

2.6 Clock

This application displays the time and date. There are five sub menus:

2.6.1 Display Current Time

For example, if the time is 22:20:12, Seika6 displays cl>22h20m12s which is 24-hour format, cl>10h20m12s pm which is 12-hour format. Press Enter or Space +e (1-5 + Space) to escape. You can also press Space+t to display the current time in tree list, Notepad, Read function.

2.6.2 Display Current Date

For example, if the date is 25.06.2012, Saturday, the Seika6 will display cl>sat 25d06m12y. Press Enter or Space +e (1-5 + Space) to escape.

2.6.3 Set Time

cl>set time

Press Enter to set the time by changing the hour, minute, second and am/pm. Press Joystick Left and Joystick_Right to move the routing cursor. You will need to press Enter to accept the new setting or press Space +e (1-5 + Space) to cancel the setting.

2.6.4 Set Date

cl>set date

Press Enter to set the date by changing the day, month and year. Press Joystick Left and Joystick_Right to move the routing cursor. You will need to press Enter to accept the new setting or press Space +e (1-5 + Space) to cancel the setting.

2.6.5 Set hour format

cl>time format

Press Enter to set hour format, the Seika6 will display "12 24". You can toggle the 12 or 24 hour format by pressing Joystick Left and Joystick_Right to move the routing cursor. You will need to press Enter to accept the new setting or press Space +e (1-5 + Space) to cancel the setting.

The default hour format is 12-hour.

2.7 Calculator mode

2.7.1 The basic calculator

With the calculator you can perform arithmetical functions such as addition, subtraction, multiplication, division. You use LB and RB to display the whole equation and the result.

Operator	Standard Braille	Braille
Decimal separator	.	4-6
Addition	+	3-4-6
Subtraction	-	3-6
Multiplication	*	1-6
Division	/	3-4
Equal	Enter	8, or Joystick_Center
Left parenthesis	(	1-2-3-5-6
Right parenthesis	)	2-3-4-5-6
Clear the cursor left number	Backspace	7
Clear the current number	Space+d	1-4-5+Space
Clear all number	Space+Backspace	7+Space

For example, if you want to get the result of '1+2', you should press '1', '+', '2' one by one, and then press Enter, you will get the equation and result, '1+2=3'. If the equation and result is longer than one and you can use LB and RB to display the whole equation and the result. If you want to begin a new equation, please input new number directly and the old equation will be clear automatically. Of course you can also use result '3' as new equation beginning number.

If you want to enter in negative numbers, you should type in minus (3-6) and the number together in parentheses. For example, you should type in minus, 2 in the following manner: '-2'.

*2.7.2 The scientific calculator

The scientific Calculator allows you to perform more scientific arithmetic operations, such as: exp(x), ln(x), log10(x), sqrt(x), cbrt(x), sin(x), cos(x), tan(x), pow(x,y) and percent.

You should input the number and then press Enter to get the result. You should input the left and right bracket if you use scientific formula.

Operator	Standard Braille	Braille
exp(x) calculate e^x, e is napierian base.	e	1-5

ln(x) natural logarithm, x>0.	n	1-3-4-5
log10(x) base-10 logarithm, x>0.	l	1-2-3
sqrt(x) square root, x>0.	q	1-2-3-4-5
cbrt(x) cube root function.	u	1-3-6
sin(x) trigonometric sine function	s	2-3-4
cos(x) trigonometric cosine function	c	1-4
tan(x) trigonometric tangent function	t	2-3-4-5
pow(x,y) power, calculate x^y, y>0, y is integer.	p	1-2-3-4
Percent	%	1-4-6
PI	y	1-3-4-5-6

For trigonometric function, you can input 'r' or default for radian, and input 'd' for degree. For example, if you want to get the result of: 12+sin(PI/6) for radians, you should press '1', '2', plus '+' one by one, then press the first letter of sin, the 'sin(' will be displayed automatically, you can press 'r' or not for radians, press 'y', Division '/', '6', then press Enter button, you will get the equation with the result: 12+sin(rPI/6)=12.5.

For the percent operation, you can get the result when you put in the numbers first and the percent sign '%' just after typing in the numbers. Immediately after you have typed in the percent sign '%', the number that you have typed in will be converted into a percent value. For example, 20+10% equals 20+2. You will see the number 22 on pressing the % sign since 2 is 10% of 20. So, you get 22 for your answer.

2.8 Tools mode

The tools application allows you access to the information center of your device.

In Tools menu, you can press Space+m (1-3-4 + Space) to mute all alarm beep, and press Space+m again to enable alarm beep. You can also press Space+r (1-2-3-5+Space) to restore Seika6 with the default settings: 24-hour time format, one minutes sleep waiting time, beep is enable, 6-dot braille table, Grade one braille, auto scroll speed is middle.

2.8.1 Power Menu

tls>power

This function shows the battery charging power source and battery level. If your Seika6 is not charging, it will display "power xx%". When the battery level is lower than 15%, the Seika6 will alarm step-down three tones Mi-Lai-Do every 15 minutes. When you plug in the USB cable connected with wall adapter or PC, the Seika6 will beep step-up two tones Do-Mi and display "usb charging". When the battery is charged fully, the Seika6 will beep step-up three tones Do-Lai-Mi, and it will display "charged full". Press Space +e (1-5 + Space) or Enter or Joystick Left to exit. When the battery level is lower than 5%, Seika6 will alram step-down four tones Fa-Mi-Lai-Do, and shut down automatically. Seika6 will save the current editing file which named "TEMP0000.TXT" in the root directory.

2.8.2 Update

tls>update

This feature allows you to update the firmware. You need to download the update BIN file into the USB disk, and plug it into Seika6 USB slot. Press Enter and the Seika6 will update the firmware, and it will take about 8 seconds. After the update is completed, it will beep twice and display "pls restart". Then turn off the Seika6 and restart.

NOTE: Do not remove the USB disk or turn the power off when updating the firmware or the Seika6 firmware will be corrupted.

NOTE: If the update process fails, and Seika6 cannot work, don't worry, there is another way to start update. Turn off the Seika6, keep pressing Space + u (1-3-6 + Space) and turn the power on. When it displays "update", press Enter, and it will begin the update process again.

2.8.3 Test

tls>test

This function allows you to test the Seika6 Braille cells and keys. The braille pins will go up and down automatically, and the Seika6 will beep once if you press any key. Press Space +e (1-5 + Space)or Joystick Left to escape.

2.8.4 About

tls>about

This feature displays the current version of the program, the format is "v*.***", such as "v1.001". Press Enter or Space +e (1-5 + Space) or Joystick Left to escape.

2.8.5 Set sleep time

tls>set sleep

Press Enter or Joystick_Right to set the sleep waiting time, and the Seika6 will display "1 minute". You can select the sleep waiting time by pressing Joystick_Up and Joystick Down, then press Enter to accept the new setting or press Space +e (1-5 + Space) or Joystick Left to cancel setting.

The default sleep waiting time is 1 minute. You can set the sleep waiting time from 1 minute to 30 minutes. We suggest that you do not set the waiting time more than 5 minutes for extending the braille cell and battery life time

2.8.6 Help

tls>help

This function will show the help document on the MicroSD card. You could use the Read function hot key to read the help document. Press Space +e (1-5 + Space) to escape. If there is no help file in MicroSD card, it will display "no content".

*2.9 Transfer file between Seika6 and computer

This function allows you transfer file between Seika6 and your computer. The file size limitation is 1M bytes. You need run the Transfile terminal program in your computer, you can find this program, Transfile.exe, in the CD. Transfile program can show all folders and files in Seika6, so you can use hotkey to copy or paste file between Transfile and computer

If you want to set up the connection, please use USB cable connect Seika6 and your computer, then restart Seika6 and press Space+c (1-4 + Space) when you are in the root menu of Seika6. Then, the Seika6 will be waiting for the connection. Then run the Transfile in your computer, the connection will be set up. If the connection is not set up automatically , please click the "Connect" button on the Transfile program.

You can press Windows property key to show the file operation list in the Tranfile program file list tree window, and in the operation list, you can select copy to open the Windows Save As dialog .

The functions and hot key of Transfile program in your computer:

Alt+F4: Close this program.
Tab: Toggle the focus on the program panel.
Backspace: Go back to the upper directory.
Enter: Open the highlight directory.
Up-Key: Highlight the previous item.
Down-key: Highlight the next item.
Ctrl+c: Copy the file into the computer clipboard
Ctrl+v: Paste the file into the directory.

3. Configuring the Bluetooth Connection on your PC

This section instructs you how to install and setup Bluetooth on your PC. If there is already Bluetooth built into your computer, please skip section 3.1 and go to section 3.2. If there is no Bluetooth device in your computer, please follow the steps in section 3.1.

3.1 Installing the Bluetooth Dongle Driver

Open the "USB Bluetooth dongle driver" folder on the CD. Run the "setup.exe".

Install the driver using the default steps. The Bluetooth dongle driver will be installed automatically. A console window appears; it takes several minutes.

Click "finish", and the Bluetooth dongle driver will be installed successfully.

Find the USB Bluetooth dongle that came with your Seika6 package and plug it into your computer.

3.2 Setting up the Bluetooth Connection

Bluetooth is a short-range wireless communications technology.

The Seika6 with Bluetooth capability can communicate with a device over a distance of about 10 meters (30 feet) without requiring a USB cable.

In order to use the Seika6 through Bluetooth, you need to establish a partnership with a Bluetooth enabled computer. Most laptops have built-in Bluetooth. If there isn't built-in Bluetooth on your computer, you need to plug in an external USB Bluetooth dongle (find it in the Seika6) and install the appropriate drivers on your computer.

Here are instructions for setting up the Bluetooth connection between the Seika6 and your computer.

Do not connect the USB cable to the computer (use the USB cable and power adapter for charging the Seika6).

Turn on the Seika6 and open the Seika6 Bluetooth following the steps in section 2.5.

Make sure that Bluetooth is enabled on your computer. If you are using an external USB Bluetooth adapter, make sure you've inserted it into your computer.

Double click the Bluetooth icon in the Windows desktop to open Bluetooth Manager, and search for Bluetooth devices. It will take several seconds. When the search is complete, the Braille display Bluetooth name TSM appears in the list of devices.

Select TSM from the list. If the computer doesn't find the Seika6, please make sure you turn on the Seika6, and then search again.

In the Bluetooth passcode edit field, type 0000.

After a few seconds, you will receive a message that the Bluetooth device was successfully connected and the outgoing and incoming COM port assignments are displayed. Make a note of the outgoing port number as this is the port the screen reader will use to communicate with the Seika6.

Now you are ready to configure your screen reader to use the Bluetooth COM port. To configure the COM port in the screen reader, please refer to chapter 4 for Jaws, chapter 5 for Window-Eyes.

4. Using the Seika6 with JAWS

4.1 Installing the Seika Patch for JAWS

Open the "Patch for JAWS" folder in the CD. Run the Patch for JAWS according to your Windows operating system.

Install the patch by using the default steps. The Patch for JAWS will be installed by the JAWS Utility automatically. A console window appears which will take several minutes.

4.2 Working in JAWS

4.2.1 Configuring JAWS

Start JAWS and select "Braille…" in the "Options" menu.

Assuming that the default Braille display is set to "No display", tab to the "Add Braille Display" button and press Enter.

In the "Select components" dialog box, there is a list of Braille displays. Select the "Seika" by pressing the Space bar.

Tab to the "Next" button and press Enter.   If you connected the Seika6 to your computer by USB cable, select "USB" as the output port.

If you connected the Seika6 to a PC using Bluetooth, in the "Set device options" dialog box, select the output port that corresponds to the COM port number that you made note of in chapter 3.2.Tab to the "Next" button and press enter.

When prompted to set the primary device, select "Seika" in the "Primary device" list.

Tab to the "Finish" button and press Enter.

In the "Braille Basic Settings" dialog box, tab to the "OK" button and press it.

Restart JAWS and the Seika6 will work now.

4.2.2 Navigation keys and commands

Function	Keys
Enter	9A
Enter	RJ_Center
Space	A
JAWS Back Space	9
Up Arrow Key	RJ_Up
Down Arrow Key	RJ_Down
Left Arrow Key	RJ_Left
Right Arrow Key	RJ_Right
Braille Pan Right	RB
Braille Pan Left	LB
Stop Speech	9+RB
Braille Moves Active	LJ_Left+RJ_Up
Active Moves Braille	LJ_Left+RJ_Down
Braille Toggle Marking	LJ_Center+RJ_Up
Braille Next Line	LJ_Right
Braille Prior Line	LJ_Left
Start JAWS Task List	LJ_Right+RJ_Up
List Task Tray Icons	LJ_Right+RJ_Dowm
Right Mouse Button	LJ_Right+RJ_Right
Left Mouse Button	LJ_Right+RJ_Left
Left Mouse Button Lock	A+LJ_Right
Route JAWS Cursor To Pc	LJ_Right+RJ_Center

Route PC Cursor To JAWS	LJ_Left+RJ_Center
Braille Bottom	LJ_Down
Braille Top	LJ_Up
Seika6 mize All Apps	9+LJ_Center
Select A Link	LJ_Down+RJ_Left
Select A Frame	LJ_Up_Up+RJ_Down
Select A Heading	LJ_Up+RJ_Left
Select A Form Field	LJ_Up+RJ_Right
Braille Toggle 8 Dots	A+LB
Bottom Of File	LJ_Up+RJ_Up
Top Of File	LJ_Down+RJ_Down
PC Cursor	RB+LJ_Right
JAWS Cursor	RB+LJ_Left
Braille Toggle Mode	LB+RB
Braille Toggle 8 Pixels Per Space	A+RB
Braille Toggle Characters And Attributes	LJ_Left+RJ_Left
Braille Turn Marking Off	9+LB
Increase Braille Auto Advance Speed	LB+RJ_Center
Decrease Braille Auto Advance Speed	LB+LJ_Center
JAWS Page Down	LJ_Down+RJ_Center
JAWS Page Up	LJ_Up+RJ_Center
Braille Tab	LJ_Center+RJ_Right
Braille Shift Tab	LJ_Center+RJ_Left
Next Document Window	RB+LJ_Down
Previous Document Window	RB+LJ_Up
Route Braille To Active Cursor	RB+LJ_Center
Braille Select Text	RJ_Center+Routing
Repeat Last Flash Message	LJ_Down+RJ_Up
Braille Auto Advance	LJ_Down+RJ_Right

4.3 Uninstalling the patch for JAWS

Note: If you uninstall the JAWS patch, it will disable the Seika6's ability to work with JAWS and delete all the associated patch files. You must uninstall this patch first before uninstalling JAWS.

4.3.1 Uninstalling the old version of the Seika patch for Jaws

Open the "Add or Remove Programs" in the "Control Panel", and select the item: "Seika Braille Display version 3" or "Seika Patch for JAWS V1.x" or "Seika Patch for JAWS V2.x". Uninstall the item step by step. The installation will take several minutes. Please restart the computer after the installation.

4.3.2 Uninstall the current version of the Seika patch for Jaws

Open the "Add or Remove Programs" in the "Control Panel", and select the item: "Seika Patch for JAWS V2.3". Uninstall the "Seika Patch for JAWS V2.3" step by step. The installation will take several minutes. Please restart the computer after the uninstall finishes.

5. Using the Seika6 with Window-Eyes

5.1 Configuring Window-Eyes 7.5.2

Note: We strongly recommend you update Window-Eyes to version 7.5.2 or later.

If you connect the Seika6 to your computer using Bluetooth, in the "Set device options" dialog box, select the output port that corresponds to the COM port number that you made note of in chapter 3.

Start Window-Eyes 7.5 and select "Device" in the "Settings" list.

Select "Braille Display" in the "Device" list.

In the "Braille Displays" option, select "Seika".

In the "Ports" option, if you connect the Seika6 to your computer using USB, select the USB connection.

If you connect the Seika6 to your computer using Bluetooth, select the Seika COM port number that you made note of in chapter 3.

Tab to the "Activate" button and press Enter.

Select "Keep Changes" button in the "Braille Settings" dialog box, then press Enter.

Tab to "Save Settings" button and press Enter.

5.2 Navigation Keys and Commands

Bottom Line	RJ_Right
Mouse Bottom Left	LB+RJ_Down
Mouse Bottom Right	RB+LJ_Right
Mouse Top Left	LB+RJ_Up
Mouse Top Right	RB+LJ_Left
To Focus	LB+RB
6/8 Dot Toggle	Space +LB
Untranslate at Cursor	LJ_Center+RJ_Left
Untranslate at Mouse	LJ_Center+RJ_Right
Braille Graphic Mode	LJ_Center+RJ_Down
Scroll Mode Toggle	LJ_Up+RJ_Left
Show Attributes Toggle	LJ_Down+RJ_Center
Grade 2 Braille Toggle	LJ_Center+RJ_Center
Braille Tracking Toggle	LJ_Down+RJ_Down
Spacing Toggle	LJ_Down+RJ_Right
Attributes To Show Rotor	LJ_Up+RJ_Center
Display Individual Attribute Rotor	LJ_Center+RJ_Up
Quick Message Rotor	LJ_Down+RJ_Left

6. Using the Seika6 with VoiceOver

6.1 Using VoiceOver on the iPad and iPhone

Do not connect the USB cable with your computer (use the USB cable and power adapter for charging the Seika6).
Turn on the Seika6 and enable Seika6 Bluetooth following the steps in section 2.5. Once Seika6 Bluetooth is started, it will display "wait connect...", two seconds later, it will display "btname>tsm ****", where **** is the Bluetooth name serial number.
Make sure your iPhone Bluetooth is turned off.
Enable the voiceover by the following steps: iPhone Settings - General - Accessibility – VoiceOver.
Enalbe the Braille by the following steps: VoiceOver – Braille. When you are asked whether open Bluetooth or not, please select open Bluetooth, then iPhone will search the Seika6, and it will take about one minutes. When iPhone find Seika6 and display Bluetooth name TSM ****, you need double click this item and input the pin code 0000 to set up the connection.
If you already set up the connection successfully, there is a fast connection way. After you power on the Seika6, please DO NOT touch any keys, the Seika6 will open Bluetooth and wait connection. So you can launch the voiceover and set up the connection.
If the iPhone or iPad is sleep or out of range, or you restart Seika6, the connection maybe broken. You can double click the TSM xxxx in VoiceOver ->Braille->Choose a braille display and set up the connection again.
If you would like to switch two iOS devices connection with Seika6, you can make one iOS device sleep and the Seika6 will wait connection. Then you can start the other iOS device and double click the TSM xxxx in VoiceOver ->Braille->Choose a braille display, the connection will be set up with this iOS device.
By default, VoiceOver displays uncontracted, eight-dot braille. In this mode, VoiceOver automatically translates each character and digital you type on your braille display into braille output, as you type it. You can turn off eight-dot braille to use uncontracted, six-dot braille instead. In this mode, VoiceOver automatically translates each word you type on your braille display into braille output, after it determines you've completed a word or you press the Space bar on your braille display.

6.2 Using VoiceOver on a Mac OS X computer

Do not connect the USB cable with your computer (use the USB cable and power adapter for charging the Seika6).
Turn on the Seika6 and open the Seika6 Bluetooth following the steps in section 2.5.
Launch VoiceOver Utility
Click on the "Braille" tab on the left.
Click on the "Displays" tab.
The Braille display Bluetooth name will appear in the list of Braille devices. Its name will begin with TSM in the list of devices.
Click the device name to select it, and initiate the pairing.
You will be taken to a passcode entry screen, enter the passcode 0000.

6.3 Navigation keys and commands

Note: When using a Braille display with VoiceOver using IOS 6 or later, you can use the following key

commands to navigate.
Common Braille Commands for VoiceOver Navigation:

Function	keys
Move to previous item	1 + Space
Move to next item	4 + Space
Move to previous item using rotor setting	3 + Space
Move to next item using rotor setting	6 + Space
Select previous rotor setting	2-3 + Space
Select next rotor setting	5-6 + Space
Move to the first element	1-2-3 + Space
Move to the last element	4-5-6+ Space
Read page starting at selected item	1-2-3-5 + Space
Read page starting at the top	2-4-5-6+ Space
Activates the Home button	1-2-5 + Space
Goes to the Status bar	2-3-4+ Space
Activates the Volume Up button	3-4-5 + Space
Activates the Volume Down button	1-2-6 + Space
Activates a Back button if present	1-2 + Space
Activates the Eject key	1-4-6 + Space
Activates the Delete key	7 + Space
Activates the Delete key	1-4-5 + Space
Activates the Return (Enter) key	8 + Space
Activates the Return (Enter) key	1-5 + Space
Activates the Tab key	2-3-4-5+ Space
Toggle Screen Curtain on and off	1-2-3-4-5-6 + Space
Pause or Continue speech	1-2-3-4+ Space
Toggle speech on and off	1-3-4 + Space
Speak page number or rows being displayed	3-4+Space
Scroll up one page	3-4-5-6+Space
Scroll down one page	1-4-5-6+Space
Scroll left one page	2-4-6+ Space
Scroll right one page	1-3-5 + Space
Deselect text	2-3-5 + Space
Select text	2-5-6 + Space
Select all	2-3-5-6+Space
Cut	1-3-4-6+Space
Copy	1-4+Space
Paste	1-2-3-6+Space
Undo typing	1-3-5-6+Space
Redo typing	2-3-4-6+Space
Pan Braille to the left	2 + Space
Pan Braille to the right	5 + Space
Goes to Notification Center	4-6+ Space
Goes to Control Center	2-5+Space
Toggle announcement history	1-3-4-5 + Space
Switch between contracted and uncontracted Braille	1-2-4-5 + Space
Move to previous container (iPad only)	1-7+Space
Move to next container (iPad only)	4-7+Space

Device keys for VoiceOver navigation:

Function	keys
Pan braille to the left	LB
Pan braille to the right	RB
Select item under your finger	LJ_Center
Move to previous item	LJ_Left
Move to next item	LJ_Right
Move to previous item using rotor setting	LJ_Up

Move to next item using rotor setting	LJ_Down
Select item under your finger	RJ_Center
Move to previous item	RJ_Left
Move to next item	RJ_Right
Move to previous item using rotor setting	RJ_Up
Move to next item using rotor setting	RJ_Down
Double tap the selected item	Router
Toggle expanded status description	Status Router

7. Using the Seika6 with NVDA
7.1 Pairing Braille Devices

After you install NVDA 2012.2 or later version, You need click Windows Start-->Program-->NVDA --> explore NVDA user configuration directory, go into the folder "brailleDisplayDrivers", and then unzip and copy all files in the seikadevice.zip into the folder "brailleDisplayDrivers", then after you run NVDA, you will find "Seika Mini Notetaker" in the braille display list.

7.2 Braille Commands

Function	Keys
Braille_scroll Back	LB
Braille_scroll Forward	RB
Braille_previous Line	LJ_Up
Braille_next Line	LJ_Down
Braille_toggle Te ther	LJ_Center
Say all	Space+Backspace
Show gui	RB+LB
Tab	LJ_Right
Shift+tab	LJ_Left
Up arrow	RJ_Up
Down arrow	RJ_Down
Left arrow	RJ_Left
Right arrow	RJ_Right
Enter	RJ_Center
Shift+up Arrow	Space+RJ_Up
Shift+down Arrow	Space+RJ_Down
Shift+left Arrow	Space+RJ_Left
Shift+right Arrow	Space+RJ_Right
Escape	Space+RJ_Center
Shift+up Arrow	Backspace+RJ_Up
Shift+down Arrow	Backspace+RJ_Down
Shift+left Arrow	Backspace+RJ_Left
Shift+right Arrow	Backspace+RJ_Right
Windows	Backspace+RJ_Center
Space	Space
Backspace	Backspace
Page up	Space+ LJ_Right
Page down	Space+LJ_LEFT
Home	Space+LJ_UP
End	Space+LJ_DOWN
Control+home	Backspace+LJ_UP
Control+end	Backspace+LJ_DOWN

Enter	Space+dot8

8. Using the Seika6 with Mobile Accessibility v2.0 for Android

8.1 Pairing Braille Devices

Do not connect the USB cable with your computer (if you will charge the Seika6, please use power adapter).

Turn on the Seika6 and open the Seika6 Bluetooth following the steps in section 2.5.Start your braille device, check the device manual for instructions to start and enable Bluetooth on the device.

Go to Mobile Accessibility > Apps > Settings > Wireless and Network > Bluetooth Settings.

Check the option "Bluetooth".

In the same window, use "Scan Devices" to let the device scan nearby Bluetooth devices.

After few seconds, Scroll in the window to find your Braille display device.

It will prompt you to enter passcode pin for the device, enter the passcode "0000"

Enter the pin of the device, for pin information for pairing, check the device user manual.

8.2 Configuring Braille Display with Mobile Accessibility

Go to Mobile Accessibility > Settings > Braille Settings.

Activate the option "Braille Device"

In the list select the Braille device you wish to use. This list contains all Bluetooth devices paired with the phone.

Stay in the braille settings and activate the option "Device Model"

In the list, select the model of Seika Notetaker.

Exit the Braille settings and the setting window.

Congratulations, the braille device is configured.

8.3 Removing Braille Display configuration

Follow the below steps

Go to Mobile Accessibility > Apps > Settings > Wireless and Network > Bluetooth Settings.

Check the option "Bluetooth".

In the same window, scroll down to find the device you wish to remove.

Hit Long enter on the device and select "Unpair"

8.4 Enabling / Disabling Braille

To enable or to start braille with Mobile Accessibility:

Activate quick menu, use the menu key or triple tap the screen within Mobile Accessibility window.

Select the option "Enable Braille".

Mobile Accessibility will beep and will announce "Braille Ready".

To disable or to stop Braille with Mobile Accessibility:

Activate quick menu, use the menu key or triple tap the screen within Mobile Accessibility window.

Select the option "Disable Braille".

Mobile Accessibility will beep and will announce "Braille off"

8.5 Braille Commands

Dots 1 through 8: Braille input keys labeled from left to right as 7, 3, 2, 1, 4, 5, 6, and 8.

Cursor-routing is above on every Braille cell.

Left button and Right button are on the left and right side of the Braille cell area respectively.

Left Joystick and Right Joystick are on the below of the Left button and Right button respectively. Left Joystick Left (LJ_Left), Left Joystick Right (LJ_Right), Left Joystick Previous (LJ_Up), Left Joystick Next (LJ_Down) and Left Joystick Center (LJ_Center) are the Left Joystick 5 keys. The Right Joystick also has 5 keys: RJ_Left, RJ_Right, RJ_Up, RJ_Down and RJ_Center.

Dot7 and Dot8 represent Backspace and Enter respectively if Dot7 and Dot8 aren't use for typing.

There are two Space Buttons between the Left Joystick and Right Joystick.

Function	Keys
Dial 1	Braille dots according to selected translation table
Dial 2	Braille dots according to selected translation table
Dial 3	Braille dots according to selected translation table
Dial 4	Braille dots according to selected translation table
Dial 5	Braille dots according to selected translation table

Dial 6	Braille dots according to selected translation table
Dial 7	Braille dots according to selected translation table
Dial 8	Braille dots according to selected translation table
Dial 9	Braille dots according to selected translation table
Dial 0	Braille dots according to selected translation table
Dial *	Braille dots according to selected translation table
Dial #	Braille dots according to selected translation table
Enter (Accept)	Enter,RJ_Center,LJ_Center, Cursor-Routing in Braille Cursor mode
Home	Space + Backspace + dots125(h)
Back(Escape)	Space + dots12(b)
Insert Space	Space
Insert Paragraph Marker	Space + dots46
Braille Backspace	Backspace
Clear/Delete	Space + dots145(d)
Braille Pan Left	Left
Braille Pan Right	Right
Previous Character/Grid Item/Tab Sheet	LJ_Left,RJ_Left,Space + dot3
Next Character/Grid Item/Tab Sheet	LJ_Right,RJ_Right,Space + dot6
Previous Line/List Item/Menu Item	LJ_Up,RJ_Up,Space + dot1
Next Line/List Item/Menu Item	LJ_Down,RJ_Down,Space + dot4
Previous Word	Space+LJ_Left,Space+RJ_Left, Space+dot2
Next Word	Space +LJ_Right, Space + RJ_Right,Space + dot5
Left Softkey	Space + dot7
Right Softkey	Space + dot8
Dial/Send	Space + Backspace + dot3
Hang-Up/End Call	Space + Backspace + dot6
Application Menu (Switch Application)	LJ_Center+RJ_Center, Space+ dots134(m)
List of Open Applications(Show Start Menu)	Space + dots135(o)
Quick List	Space + dots12345(q)
Read Soft keys	Space + dots78
Read Status Information	Space + dots24(i)
Open Configure Mobile Speak screen	Space + dots14(c)
Change User Profile (Switch Profile)	Space + dots1234(p)
Repeat Last Spoken Text	Space + dots1235(r)
Decrease Volume	Space + Backspace + dots1236(v)
Increase Volume	Space + Enter + dots1236(v)
Decrease Speed	Space +Backspace + dots234(s)
Increase Speed	Space+ Enter + dots234(s)
Change Verbosity Level	Space + dots1236(v)
Change Keyboard Echo	Space + Enter + dots15(e)
Read Date and Time	Space + dots2345(t)
Toggle Speech Mute	Space + Backspace + dots136(u)
Interrupt/Stop Speech	Space + Backspace + dots24(i)
Toggle Command Help Mode	Space + dots125(h)
Change Braille Input Grade	Space + dots1245(g)
Toggle Braille Cursor (Toggle Tactile Cursor)	Space + dots123456
Braille Routing	Routing

9. Using the Seika6 with Mobile Speak for Symbian

Function	Keys
Dial 1	Braille dots according to selected translation table
Dial 2	Braille dots according to selected translation table

Dial 3	Braille dots according to selected translation table
Dial 4	Braille dots according to selected translation table
Dial 5	Braille dots according to selected translation table
Dial 6	Braille dots according to selected translation table
Dial 7	Braille dots according to selected translation table
Dial 8	Braille dots according to selected translation table
Dial 9	Braille dots according to selected translation table
Dial 0	Braille dots according to selected translation table
Dial *	Braille dots according to selected translation table
Dial #	Braille dots according to selected translation table
Enter (Accept)	Enter,RJ_Center,LJ_Center, Cursor-Routing in Braille Cursor mode
Home	Space + Backspace + dots125(h)
Back(Escape)	Space + dots12(b)
Insert Space	Space
Insert Paragraph Marker	Space + dots46
Braille Backspace	Backspace
Clear/Delete	Space + dots145(d)
Braille Pan Left	Left
Braille Pan Right	Right
Previous Character/Grid Item/Tab Sheet	LJ_Left,RJ_Left,Space + dot3
Next Character/Grid Item/Tab Sheet	LJ_Right,RJ_Right,Space + dot6
Previous Line/List Item/Menu Item	LJ_Up,RJ_Up,Space + dot1
Next Line/List Item/Menu Item	LJ_Down,RJ_Down,Space + dot4
Previous Word	Space+LJ_Left,Space+RJ_Left, Space+dot2
Next Word	Space +LJ_Right, Space + RJ_Right,Space + dot5
Left Soft key	Space + dot7
Right Soft key	Space + dot8
Dial/Send	Space + Backspace + dot3
Hang-Up/End Call	Space + Backspace + dot6
Application Menu (Switch Application)	LJ_Center+RJ_Center, Space+ dots134(m)
List of Open Applications(Show Start Menu)	Space + dots135(o)
Quick List	Space + dots12345(q)
Read Soft keys	Space + dots78
Read Status Information	Space + dots24(i)
Open Configure Mobile Speak screen	Space + dots14(c)
Change User Profile (Switch Profile)	Space + dots1234(p)
Repeat Last Spoken Text	Space + dots1235(r)
Decrease Volume	Space + Backspace + dots1236(v)
Increase Volume	Space + Enter + dots1236(v)
Decrease Speed	Space +Backspace + dots234(s)
Increase Speed	Space+ Enter + dots234(s)
Change Verbosity Level	Space + dots1236(v)
Change Keyboard Echo	Space + Enter + dots15(e)
Read Date and Time	Space + dots2345(t)
Toggle Speech Mute	Space + Backspace + dots136(u)
Interrupt/Stop Speech	Space + Backspace + dots24(i)
Toggle Command Help Mode	Space + dots125(h)
Change Braille Input Grade	Space + dots1245(g)
Toggle Braille Cursor (Toggle Tactile Cursor)	Space + dots123456
Braille Routing	Routing

10. Using the Seika6 with TALKS

You should install the patch for the TALKS first. Install the "Seika Patch for Talks.SIS" in your phone, open the Bluetooth and paring with the Seika Device, the pairing code is 0000 and then you can select Seika from the Braille Device list.

Function	Keys
Dial 1	Braille dots according to selected translation table
Dial 2	Braille dots according to selected translation table
Dial 3	Braille dots according to selected translation table
Dial 4	Braille dots according to selected translation table
Dial 5	Braille dots according to selected translation table
Dial 6	Braille dots according to selected translation table
Dial 7	Braille dots according to selected translation table
Dial 8	Braille dots according to selected translation table
Dial 9	Braille dots according to selected translation table
Dial 0	Braille dots according to selected translation table
Dial *	Braille dots according to selected translation table
Dial #	Braille dots according to selected translation table
Enter (Accept)	Enter,RJ_Center,LJ_Center, Cursor-Routing in Braille Cursor mode
Home	Space + Backspace + dots125(h)
Back(Escape)	Space + dots12(b)
Insert Space	Space
Insert Paragraph Marker	Space + dots46
Braille Backspace	Backspace
Clear/Delete	Space + dots145(d)
Braille Pan Left	LB
Braille Pan Right	RB
Previous Character/Grid Item/Tab Sheet	LJ_Left,RJ_Left,Space + dot3
Next Character/Grid Item/Tab Sheet	LJ_Right,RJ_Right,Space + dot6
Previous Line/List Item/Menu Item	LJ_Up,RJ_Up,Space + dot1
Next Line/List Item/Menu Item	LJ_Down,RJ_Down,Space + dot4
Previous Word	Space+LJ_Left,Space+RJ_Left, Space+dot2
Next Word	Space +LJ_Right, Space + RJ_Right,Space + dot5
Left Soft key	Space + dot7
Right Soft key	Space + dot8
Dial/Send	Space + Backspace + dot3
Hang-Up/End Call	Space + Backspace + dot6
Application Menu (Switch Application)	LJ_Center+RJ_Center, Space+ dots134(m)
List of Open Applications(Show Start Menu)	Space + dots135(o)
Quick List	Space + dots12345(q)
Read Soft keys	Space + dots78
Read Status Information	Space + dots24(i)
Open Configure Mobile Speak screen	Space + dots14(c)
Change User Profile (Switch Profile)	Space + dots1234(p)
Repeat Last Spoken Text	Space + dots1235(r)
Decrease Volume	Space + Backspace + dots1236(v)
Increase Volume	Space + Enter + dots1236(v)
Decrease Speed	Space +Backspace + dots234(s)
Increase Speed	Space+ Enter + dots234(s)
Change Verbosity Level	Space + dots1236(v)
Change Keyboard Echo	Space + Enter + dots15(e)
Read Date and Time	Space + dots2345(t)
Toggle Speech Mute	Space + Backspace + dots136(u)
Interrupt/Stop Speech	Space + Backspace + dots24(i)
Toggle Command Help Mode	Space + dots125(h)

Change Braille Input Grade	Space + dots1245(g)
Toggle Braille Cursor (Toggle Tactile Cursor)	Space + dots123456
Braille Routing	Routing

11. Using the Seika6 with android Talkback

Your phone must be Android 4.1 or above it, and please download and install Talkback and Braille Back.

Do not connect the USB cable with your computer (if you will charge the Seika6, please use power adapter).

Firstly, turn on the Seika6 and open the Seika6 Bluetooth following the steps in section 2.5

Secondly, turn on your phone Bluetooth and search the Bluetooth device of TSM **** (where **** means Seika6 Bluetooth serial number). If need, please enter the pin code "0000".

Function	Keys
Dial 1	Braille dots according to selected translation table
Dial 2	Braille dots according to selected translation table
Dial 3	Braille dots according to selected translation table
Dial 4	Braille dots according to selected translation table
Dial 5	Braille dots according to selected translation table
Dial 6	Braille dots according to selected translation table
Dial 7	Braille dots according to selected translation table
Dial 8	Braille dots according to selected translation table
Dial 9	Braille dots according to selected translation table
Dial 0	Braille dots according to selected translation table
Dial *	Braille dots according to selected translation table
Dial #	Braille dots according to selected translation table
Enter (Accept)	Enter,RJ_Center,LJ_Center, Cursor-Routing in Braille Cursor mode
Activate the main screen	Backspace + dots125(h)
Back(Escape)	Space + dots12(b)
Insert Space	Space
Insert Paragraph Marker	Space + dots46
Braille Backspace	Backspace
Clear/Delete	Dots7
Braille Pan Left	LB
Braille Pan Right	RB
Previous Character/Grid Item/Tab Sheet	LJ_Left,RJ_Left,Space + dot3
Next Character/Grid Item/Tab Sheet	LJ_Right,RJ_Right,Space + dot6
Previous Line/List Item/Menu Item	LJ_Up,RJ_Up,Space + dot1
Next Line/List Item/Menu Item	LJ_Down,RJ_Down,Space + dot4
Previous Word	Space+LJ_Left,Space+RJ_Left, Space+dot2
Next Word	Space +LJ_Right, Space + RJ_Right,Space + dot5
Left Soft key	Space + dot7
Right Soft key	Space + dot8
Dial/Send	Space + Backspace + dot3
Hang-Up/End Call	Space + Backspace + dot6
Application Menu (Switch Application)	LJ_Center+RJ_Center, Space+ dots134(m)
List of Open Applications(Show Start Menu)	Space + dots135(o)
Quick List	Space + dots12345(q)
Read Soft keys	Space + dots78
Read Status Information	Space + dots24(i)
Open Configure Mobile Speak screen	Space + dots14(c)
Change User Profile (Switch Profile)	Space + dots1234(p)
Repeat Last Spoken Text	Space + dots1235(r)
Decrease Volume	Space + Backspace + dots1236(v)
Increase Volume	Space + Enter + dots1236(v)
Decrease Speed	Space +Backspace + dots234(s)
Increase Speed	Space+ Enter + dots234(s)

Change Verbosity Level	Space + dots1236(v)
Change Keyboard Echo	Space + Enter + dots15(e)
Read Date and Time	Space + dots2345(t)
Toggle Speech Mute	Space + Backspace + dots136(u)
Interrupt/Stop Speech	Space + Backspace + dots24(i)
Toggle Command Help Mode	Space + dots125(h)
Braille Routing	Routing