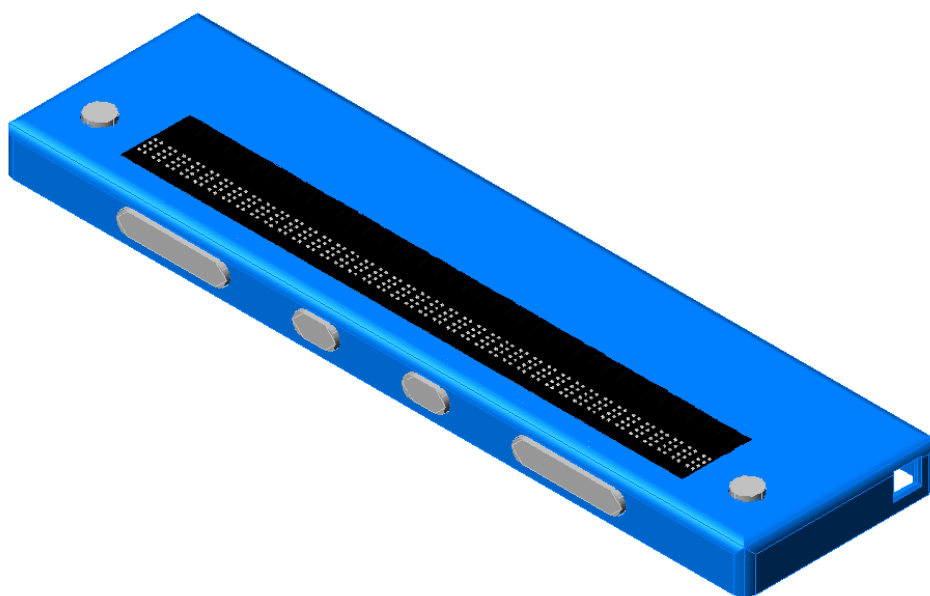


# *SEIKA*

## Braille Display

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User's Manual  
Version 3.39



## Preface

Thank you very much for purchasing Seika Braille Display.

The Seika refreshable braille display provides a tactile interface to your computer.

Before using the Seika display, please read this user's manual.

If there is anything that you don't understand about using the display, or if you find mistakes or omissions in this user's guide, please contact us or distributors by letter, FAX, or telephone.

### Safety Precautions:

This User's manual describes safety precautions according to the following level and marks of warning.

Warning mark	Mark to Prohibit	Procedures
		
Warning    Caution	Actions Prohibited	Disconnect the power plug



【Warning】

This precaution must be followed, or it could cause of fire or electric shock which could result in serious injuries or death.



【Caution】

This precaution must be followed, or it may cause of electric shock and/or any other accidents which may result in injuries and/or partial damage of the products or surrounding equipment.

- Unauthorized reproduction of this document, in whole or in part, is strictly prohibited.
- Modifications to the contents of this document for improvements or revisions may be made without prior notification.
- Product liability is limited within the country of original purchase.

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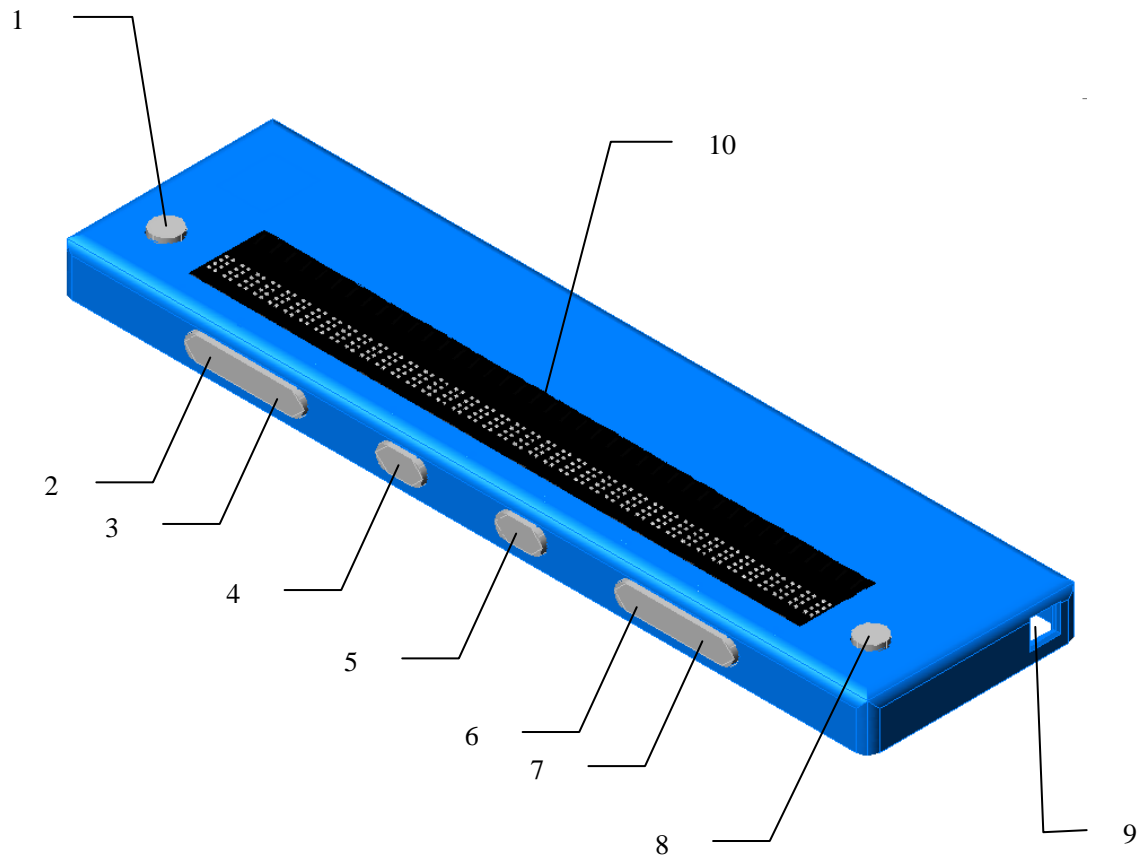
## Quick Installation Guide

- The below steps assume that you have installed the screen reader and windows in their default locations.
- Install Seika braille display driver (refer to Chapter 3).
- Install the Seika patch program and configure your screen reader (refer to Chapter 4 for Jaws, Chapter 5 for Windoweyes, Chapter 6 for HAL, Chapter 7 for Virgo, Chapter 8 for NVDA).

## Chapter 1 – Overall description of the Seika Braille Display

### 1. Name and Functions of All Components

#### 1.1 Overall Illustration of the Product



1~8---Navigation and Control Keys    9---USB Interface    10---Display

#### Seika Braille Display's size:

13.3(W) x 3.5(D) x 0.8(H) inches and weight: 0.5 kg

## Display

There are 40 refreshable braille cells (8-pin).

## Cell Position Mark

It marks the cell position. There is the position mark per 5 cells. From left to right the position mark means the 1st, 5th, 10th, 15th, 20th, 25th, 30th, 35th, 40th cell.

## Navigation and Control Keys

Place the Seika Braille Display on a flat surface with the Braille display facing upwards and the buttons facing towards you.

Top surface keys are located on the top of the Seika Braille Display.

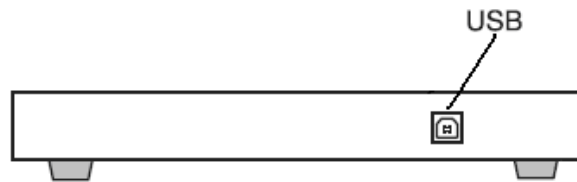
- Behind the braille cells are the CURSOR ROUTING BUTTONS. These tiny buttons are used to move the computer's cursor directly to a particular location on the screen.
- Near each end of the braille display is a small round button. The LEFT BUTTON is to the left and the RIGHT BUTTON is to the right.

Front panel navigation keys are located on the front edge, facing the user.

- On the left half of the front panel is the LEFT CTRL which contains LEFT CTRL LEFT and LEFT CTRL RIGHT.
- In the middle of the front panel are two buttons. The LEFT SHIFT is toward the left and the RIGHT SHIFT is toward the right.
- On the right half of the front panel is the RIGHT CTRL which contains RIGHT CTRL LEFT and RIGHT CTRL RIGHT.



## 1.2 Description of the right side



### USB Port

On the right side of the display, there is a foursquare USB port. You could connect Seika with the computer by plugging in a USB cable.



**【Caution】** : When a laptop computer is used for operating the braille display, please make sure that it is supplied with power via the electrical cable rather than battery. Otherwise it may cause a deficiency in the power supply.

## 2. Prompt tone

Seika will beep twice when it is connected with a computer in which the Seika driver is installed successfully.

## 3. Sleep mode

The Braille display will sleep if there is not any operation within two minutes. You could wake up the Seika braille display by press any button or activate your screen reader.

## Chapter 2 - Setup

### 1. Service Precautions (at setup time)



**【Prohibited】** : Avoid using the display in the following conditions, which may cause malfunctions.

- Direct sunlight, near air conditioners or outside.
- High humidity, such as those near a water supply or humidifier, or any place with water, oil, or chemicals.
- Avoid contact with dust, waste particles, near open windows, or locations with any toxic gases or iron powder.

Also, do not install the display near any televisions, radios, speakers, short-wave radios, or anything that is magnetic or emits radio waves. If you use it adjacent to any of these items, it can interfere with reception.

### 2. Installation Space



**【Caution】**: Install the product in a location which meets the following criteria:

- The product must be installed on a level surface.
- It is recommended to avoid putting anything heavier than a keyboard or a laptop computer or similar on top of the device as it may cause malfunction.

### 3. Operating Environment

- Temperature: 41 – 95 °F (5 – 35 °C)
- Humidity: 20 - 80% (no condensation)

### 4. Precautions for Moving



#### 【Warning】

- Violent shaking or vibrations at the time of moving may cause product failures.



#### 【Requirement】

- Turn off the computer which is connected with the Seika, and disconnect the USB cable, then move the Seika.

## Chapter 3 - Installing Seika Braille Display Driver

### 1. Installing Seika braille display driver (Windows XP)

Before using Seika with the screen reader, please install Seika braille display driver. Make sure that Seika braille display is not connected to your computer.

- Run *Seika braille display driver setup(WinXP).exe* in the “Seika driver” folder.
- Select “Begin”.
- Select “Install” to install Seika braille display driver.
- When prompted “Installation Successful”, press ENTER.
- Follow the instruction and connect Seika to your computer. The Seika will beep twice, and the model name will be displayed. The Seika driver is installed successfully.
- The Seika COM port assignments are displayed, make a note of the COM port number as this is the port which screen reader will use to communicate with Seika. Press ENTER to the next step.
- When prompted “The installation of Seika driver is successfully complete” press ENTER to finish setup.

### 2. Installing Seika braille display driver (Windows Vista)

Before using Seika with the screen reader, please install Seika braille display driver. Make sure that Seika braille display is not connected to your computer.

- Run *Seika braille display driver setup(WinVista).exe* in the “Seika driver” folder.

- Select “Begin”.
- Select “Install” to install Seika Braille display driver.
- When asked to restart your computer , selecting L(restart computer later) is suggested.
- Follow the instruction and connect Seika to your computer. The Seika will beep twice, and the model name will be displayed. The Seika driver is installed successfully.
- The Seika COM port assignments are displayed, make a note of the COM port number as this is the port which screen reader will use to communicate with Seika. Press ENTER to the next step.
- When prompted “The installation of Seika driver is successfully complete” press ENTER to finish setup.

### 3. Installing Seika braille display driver (Windows 7)

Before using Seika with the screen reader, please install Seika braille display driver. Make sure that Seika braille display is not connected to your computer.

- Run *Seika braille display driver setup(Win7).exe* in the “Seika driver” folder.
- Select “Begin”.
- Select “Install” to install Seika Braille display driver.
- When asked to restart your computer, selecting L (restart computer later) is suggested.
- Follow the instruction and connect Seika to your computer. The Seika will beep twice, and the model name will be displayed. The Seika driver is installed successfully.

- The Seika COM port assignments are displayed, make a note of the COM port number as this is the port which screen reader will use to communicate with Seika. Press ENTER to the next step.
- When prompted “The installation of Seika driver is successfully complete” press ENTER to finish setup.

## Chapter 4 – Using Seika Braille Display with JAWS

(For JAWS version 10.0.1154 and later)

### 1. Installing Seika Patch for JAWS

**NOTE:** Assume that JAWS has been installed.

Find the Seika patch file for JAWS in the “Seika Patch for JAWS” directory on the CD. There are three different patch files according to Windows operation system.

<i>“Seika Patch for JAWS XP”</i>	For Windows XP 32bit
<i>“Seika Patch for JAWS Vista_Win7_32bit”</i>	For Windows Vista/WIN7 32bit
<i>“Seika Patch for JAWS Vista_Win7_64bit”</i>	For Windows Vista/WIN7 64bit

- Run the Seika Patch for JAWS according to your operating system.
- Please install the patch by default steps. It will take several minutes.

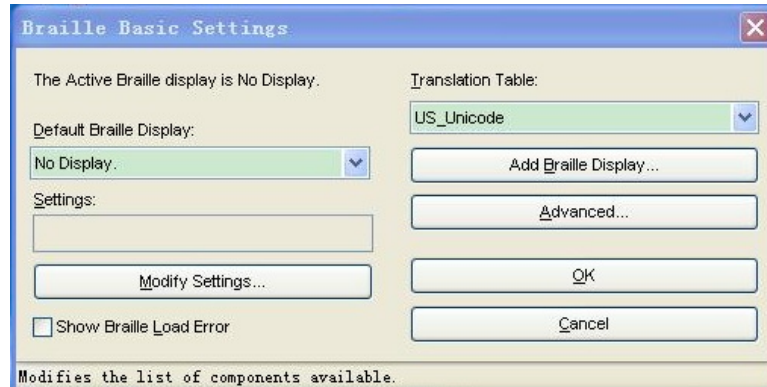
### 2. Working in JAWS

#### 2.1 Configuring JAWS

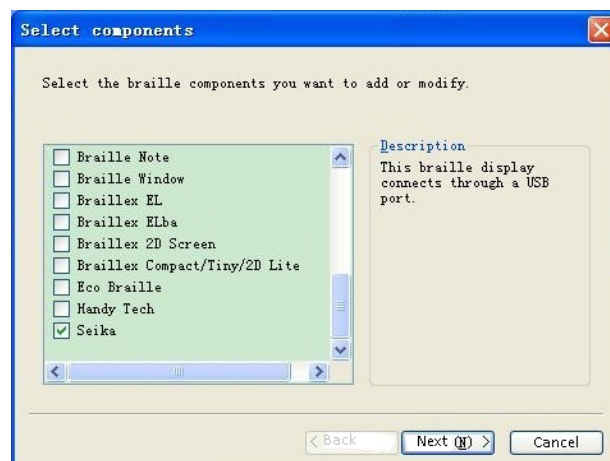
- Connect the Seika display.
- Start JAWS and select “Braille...” in the “Options” menu.



- Assuming that the default Braille display is set to “No display”, tab to the “Add Braille Display” button and press enter.



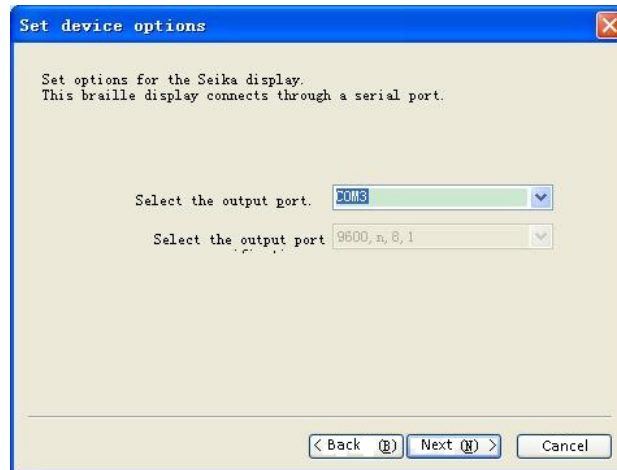
- In the “Select components” dialog box, there is a list of Braille displays. Select the “Seika” by pressing the space bar.



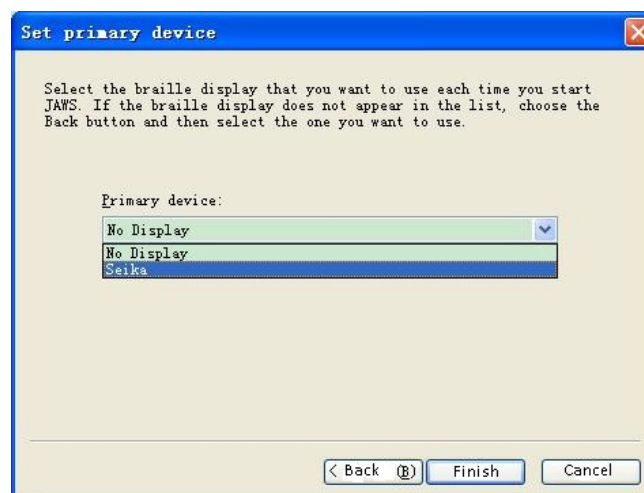
- Tab to the “Next” button and press enter.
- In the “Set device options” dialog box, if you connect Seika to your computer using USB, the output port will be set automatically, no need to change.



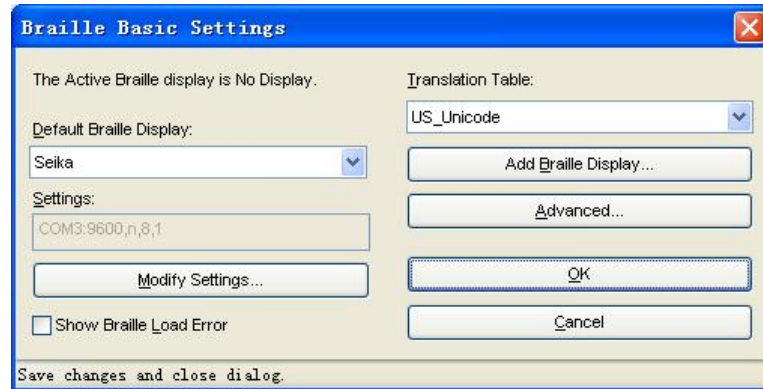
**Note:** The output port is COM1 means the Seika is not connected with the computer successfully, please refer to Chapter 3, and select the output port that corresponds to the COM port number that was displayed after you install the seika driver.



- Tab to the “Next” button and press enter.
- When prompted to set the primary device, select “Seika” in the “Primary device” list.

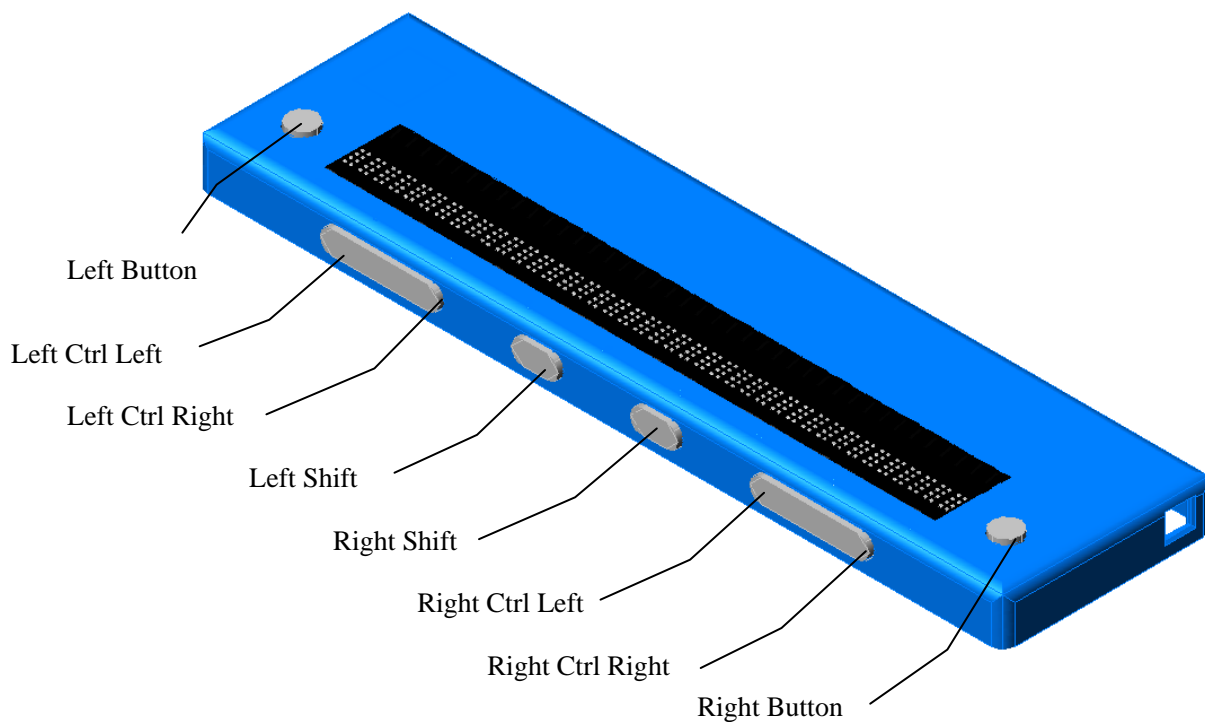


- Tab to the “Finish” button and press enter.
- In the “Braille Basic Settings” dialog box, tab to the “OK” button and press.



- Restart Jaws.

## 2.2 Navigation and control keys function



**Braille Commands:**

<b>Description</b>	<b>Command</b>
Braille Mode Toggle	Left Button + Right Button
Attribute/Character mode toggle	Left Ctrl Left + Right Ctrl Left
Attribute Marking Dialog	Left Ctrl Left + Left Shift
Attribute Marking Off	Left Button + Left Ctrl Left + Left Shift
Braille Marking Off	Left Button + Left Ctrl Left + Left Shift
8-Dot/6-Dot Toggle	Right Shift + Left Shift + Right Ctrl Right
8 Pixels/Unlimited Pixels Per Space	Left Shift + Right Shift + Right Ctrl Left
Repeat Last Flash Message	Left Ctrl Left + Right Ctrl Right

**Navigation Commands:**

<b>Description</b>	<b>Command</b>
Auto Advance Mode	Left Ctrl Right + Right Ctrl Left
Increase Auto Advance Speed	Left Button + Right Shift
Decrease Auto Advance Speed	Left Button + Left Shift
Top Of Window	Left Ctrl Left
Bottom Of Window	Left Ctrl Right
Pan Left	Left Button
Pan Right	Right Button
Braille Next Line	Right Ctrl Left
Braille Prior Line	Right Ctrl Right
PAGE DOWN (Active Cursor)	Left Ctrl Right + Right Shift
PAGE UP (Active Cursor)	Left Ctrl Left + Right Shift
TAB	Left Shift + Right Ctrl Left
CTRL+TAB	Left Ctrl Right + Right Button
SHIFT+TAB	Left Shift + Right Ctrl Right
CTRL+SHIFT+TAB	Left Ctrl Left + Right Button

**Cursor Commands:**

<b>Description</b>	<b>Command</b>
Braille follows Active	Left Shift
Active follows Braille	Left Shift + Right Shift
Route Braille To Active	Right Shift
Screen Reader Cursor	Right Button + Right Ctrl Left
Mouse Button Right Click	Left Shift + Right Button
PC Cursor	Right Button + Right Ctrl Right
Route Screen Reader to PC Cursor	Right Shift + Right Ctrl Right
Route PC to Screen Reader Cursor	Right Shift + Right Ctrl Left
Select Text	Any Cursor Routing Button + Right Shift

**3. Uninstalling the patch of JAWS**

- Open the “Add or Remove Programs” in the “Control Panel”, and select the item: “Seika Patch for JAWS”.
- Uninstall the “Seika Patch for JAWS” step by step. The uninstall will taking several minutes. Please restart computer after finished.

This will delete all the file of the patch for JAWS.

## Chapter 5 – Using Seika Braille Display with Window-Eyes

Note: This patch for Window-Eyes is only applicable to the versions 6.0, 6.1, 7.0, 7.01, 7.02 and 7.1. If your Window-Eyes version is 7.11 or higher, please skip over section 1 and section 2, and directly go to section 3 (Configuring Window-Eyes).

### 1. Installing patch for Window-Eyes (Windows XP)

- Before installing *patch*, please select None in the Select Braille Display options in Window-Eyes.
- Run *patch setup for Window-Eyes (WinXP).exe*, which is in the *patch setup for Window-Eyes* folder.
- Select “Install”.
- When prompted “The installation of Window-Eyes patch setup is successfully complete.”, press ENTER to finish setup.

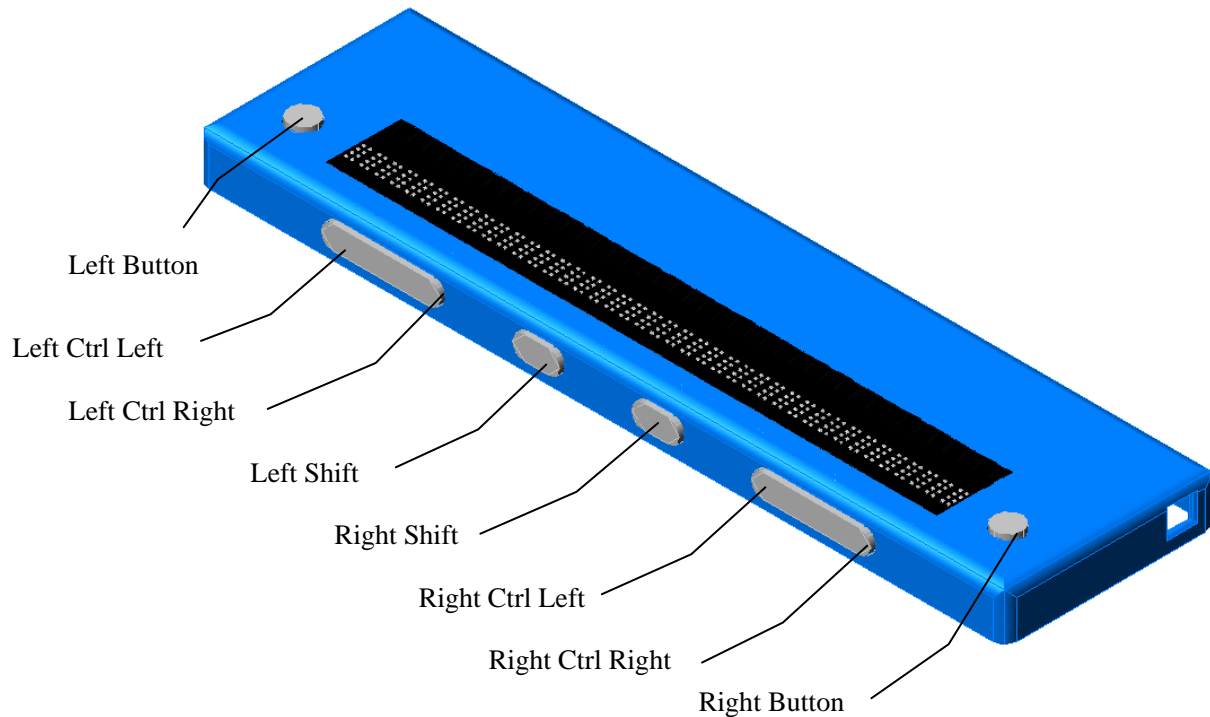
### 2. Installing patch for Window-Eyes (Windows Vista & Windows 7)

- Before installing *patch*, please select None in the Select Braille Display options in Window-Eyes.
- Run *patch setup for Window-Eyes (WinVista&Win7).exe*, which is in the *patch setup for Window-Eyes* folder.
- Select “Install”.
- When prompted “The installation of Window-Eyes patch setup is successfully complete”, press ENTER to finish setup.

### 3. Configuring Window-Eyes

- Connect the Seika display.
- Start Window-eyes.
- Select “File” in Window-Eyes, then select “Select Braille Display”.
- Select “Seika” in “Braille” option.
- In “Ports”option, select the port that corresponds to the COM port number that was displayed after you installed the seika driver in the Chapter 3. (If you forget the COM port number, refer to Chapter 3, run the appropriate Seika driver setup based on different operating systems, select “Read Virtual COM Port”, and the Seika COM port are displayed)
- Select OK button.

### 4. Navigation and Control keys function



Description	Key Press
Scroll Braille Left	Left Button
Scroll Braille Right	Right Button
Prior Braille Line	Left Ctrl Left
Next Braille Line	Left Ctrl Right
Top Line	Right Ctrl Left
Bottom Line	Right Ctrl Right
Mouse Top Left	Left Button + Left Ctrl Left
Mouse Bottom Left	Left Button + Left Ctrl Right
Mouse Top Right	Right Ctrl Left + Right Button
Mouse bottom right	Right Ctrl Right + Right Button
To Focus	Left Button + Right Button
Grade 2 Braille Toggle	Left Shift + Right Shift
Untranslate At Cursor	Left Shift + Right Ctrl Left

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Untranslate At Mouse	Left Shift + Right Ctrl Right
Scroll Mode Toggle	Left Ctrl Left + Right Ctrl Left
Spacing Toggle	Left Ctrl Right + Right Ctrl Right
Attributes To Show Rotor	Left Ctrl Left + Right Shift
Show Attributes Toggle	Left Ctrl Right + Right Shift
Quick Message Rotor	Left Ctrl Right + Right Ctrl Left
Display Individual Attribute Rotor	Left Ctrl Left + Left Shift
Braille graphic mode	Left Ctrl Right + Left Shift
Toggle 6/8 Braille	Right Shift
Braille tracking toggle	Left Shift

## 5. Troubleshooting

If you are prompted “ERROR!” in the process of the installation of Seika Braille display driver setup program , please configure Window-Eyes manually following the instruction below:

- Run the appropriate Seika driver setup based on different operating systems(refer to Chapter 3).
- Select “Read Virtual COM Port”.
- The Seika COM port assignments are displayed, make a note of the COM port number as this is the port which screen reader will use to communicate with Seika.
- Copy files

For Window-Eyes 6.x :

- 1 Copy the file *CD-ROM:\patch setup for Window-Eyes\update\WindowEyes6\braille.ini* to *c:\WINEYES\User\default* or *c:\WINEYES\User\YourFile*.



- 2 Copy the application *CD-ROM:\patch setup for Window-Eyes\update\bdisplay.exe* to *c:\WINEYES*.
- 3 Copy the file *CD-ROM:\patch setup for Window-Eyes\update\webrloem107.dll* to *c:\WINEYES*.

*For Window-Eyes 7.x :*

- 1 Copy the file *CD-ROM:\patch setup for Window-Eyes\update\WindowEyes7\braille.ini* to *c:\Program files\GW.Micro\Window-Eyes\user\default* or *c:\Program files\GW.Micro\Window-Eyes\user\YourFile*.
  - 2 Copy the file *CD-ROM:\patch setup for Window-Eyes\update\webrloem107.dll* to *c:\Program files\GW.Micro\Window-Eyes*.
- Restart Window-Eyes.
  - Select “File”, then select “Select Braille Display”.
  - Select “Seika” in “Braille” option.
  - Select COM Port in “Ports” option.
  - Select OK button.

## Chapter 6 – Using Seika Braille Display with HAL

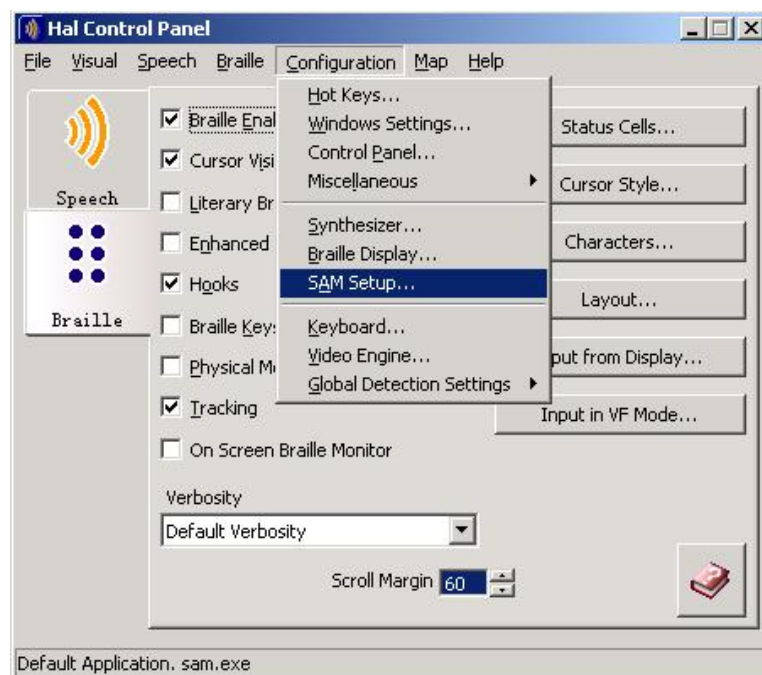
(For HAL version 10 and later)

### 1. Working in HAL

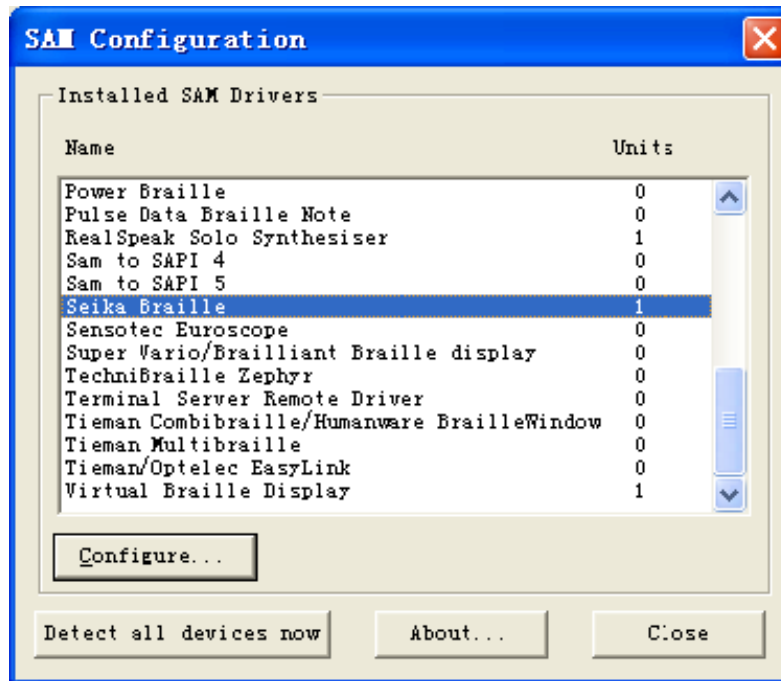
Refer to the “1.1 Configuring HAL Version 10” or “1.2 Configuring HAL Version 11” according to the version of the HAL.

#### 1.1 Configuring HAL Version 10

- Connect the Seika display.
- Run HAL.
- Open the HAL Control Panel Window.
- Select Configuration.
- Select SAM Set UP.



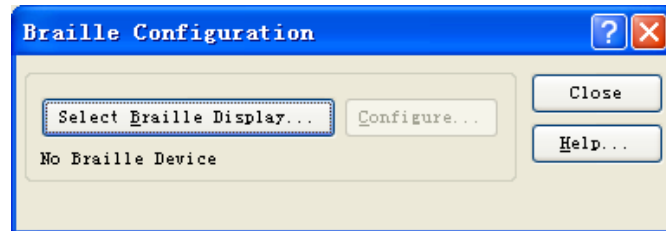
- Select “Detect All Devices now”.



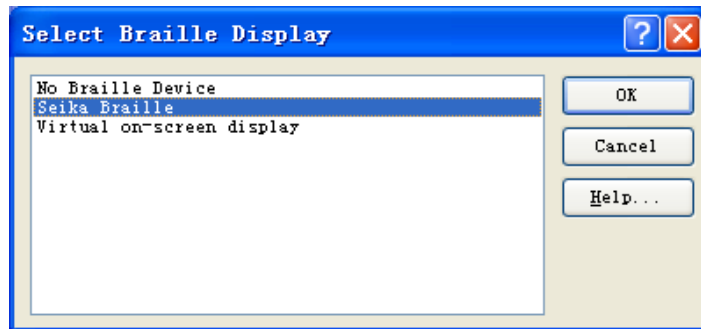
- HAL will automatically detect the Seika Braille.
- Return to the HAL Control Panel Window.
- Select "Braille Display".



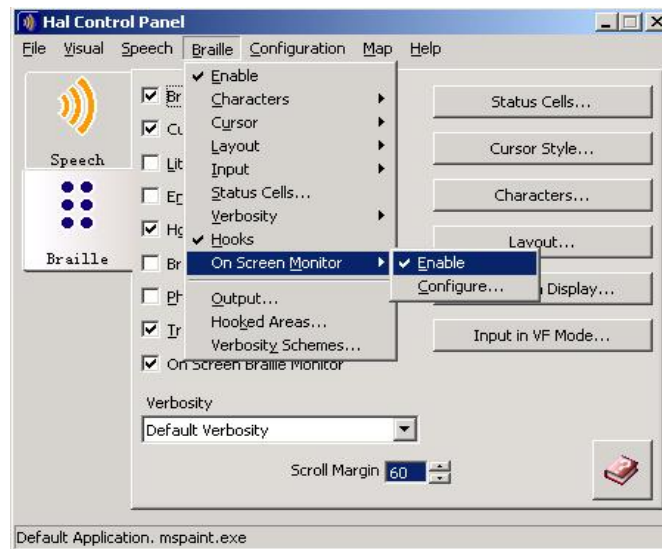
- Click “Select Braille Display”.



- Select the “Seika Braille” from the list and click “OK”.



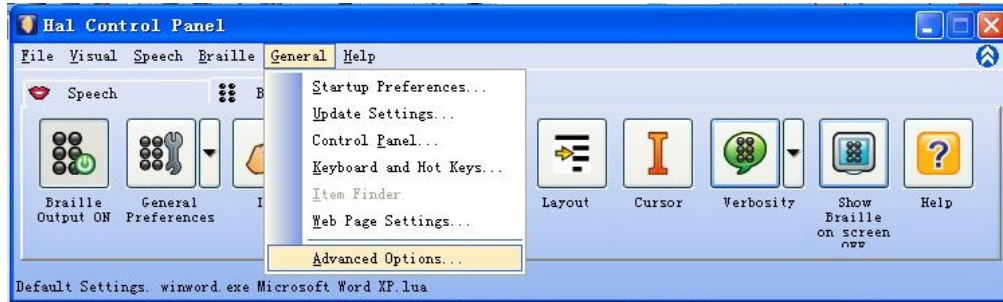
- Return to HAL Control Panel.
- Ensure that the On Screen Monitor is enabled.



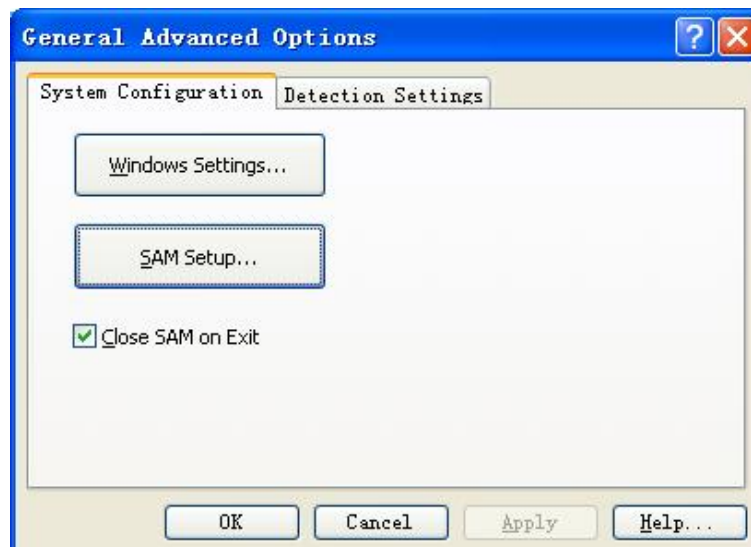
- Restart your HAL.

## 1.2 Configuring HAL Version 11

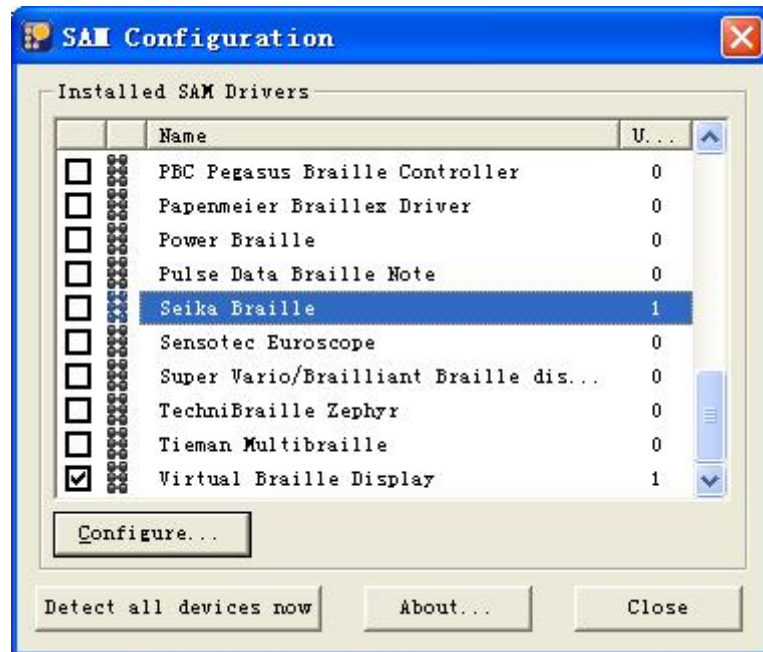
- Connect the Seika display.
- Run HAL.
- On the “Hal Control Panel”, select “Advanced Options...” from the menu item “General”.



- Select “System Configuration” tab, tab to “SAM Setup...” and press enter.



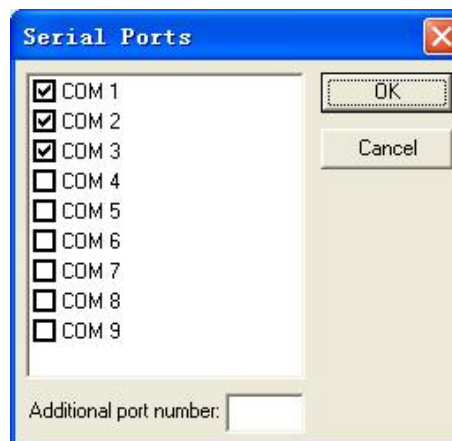
- Check the “Seika Braille” item on the “SAM Configuration” dialog box. Tab to the “Configure...” button and press enter.



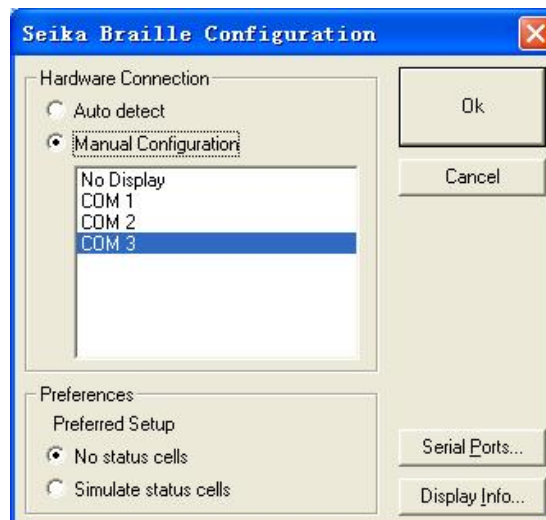
- Select the "Manual Configuration" radio button, tab to the "Serial Ports..." button and press enter.



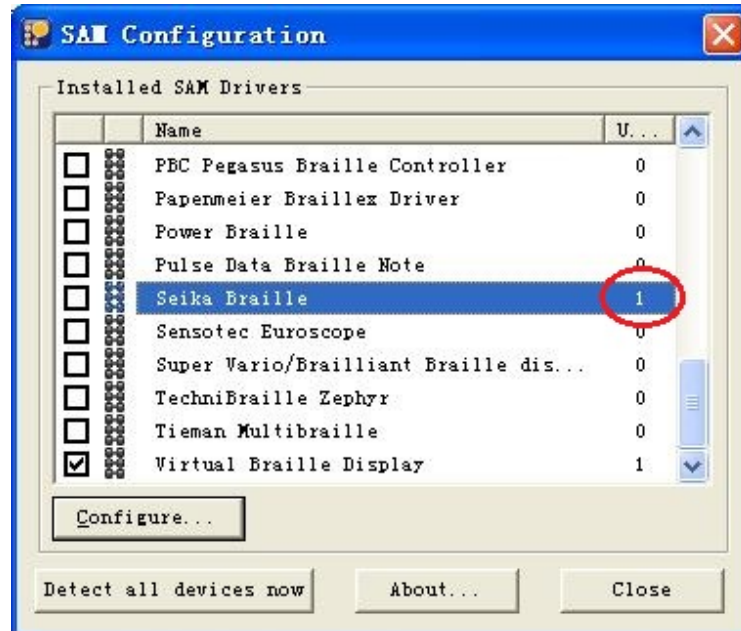
- In the list of COM ports, select and check the port that corresponds to the COM port number that was displayed after you installed the Seika driver in the Chapter 3, tab to the “OK” button and press enter. (If you forget the COM port number, refer to Chapter 3, run the appropriate Seika driver setup based on different operating systems, select “Read Virtual COM Port”, and the Seika COM port are displayed)



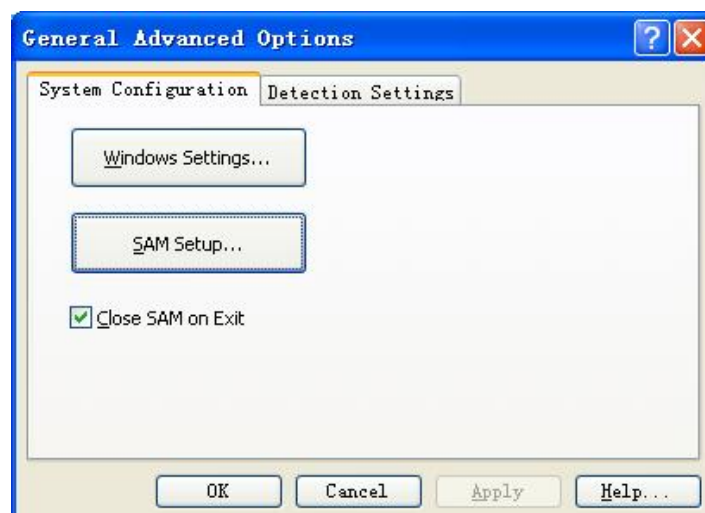
- In the “Seika Braille Configuration” dialog box, select the serial port you have just checked and tab to the “OK” button and press.



- In the “SAM Configuration” dialog box, the units of the Seika Braille is 1. The Seika Braille connects to the HAL is successful. Tab to the “Close” button and press enter.

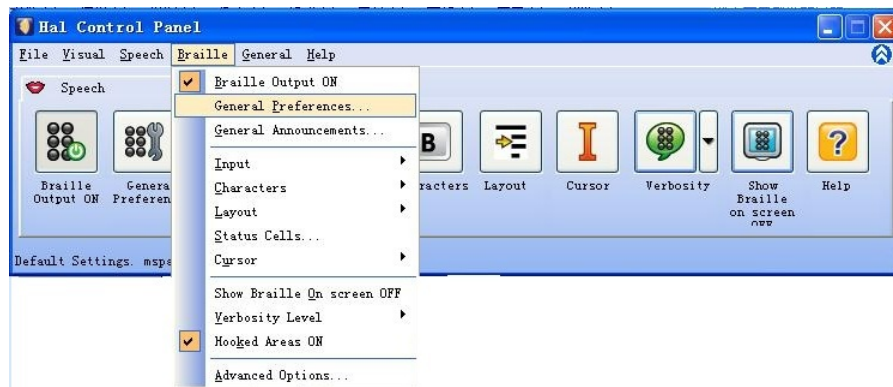


- Tab to the “OK” button and press enter in the “General Advanced Options” dialog box.

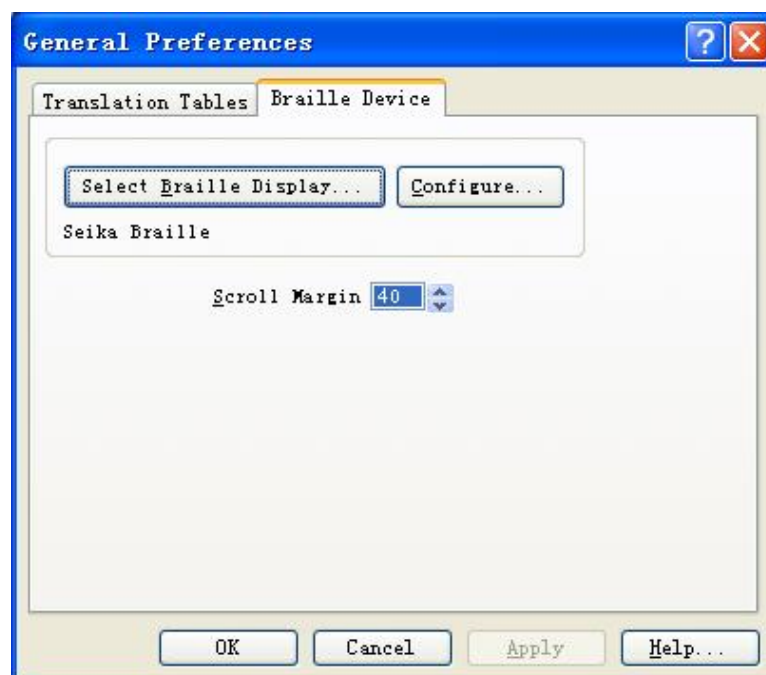




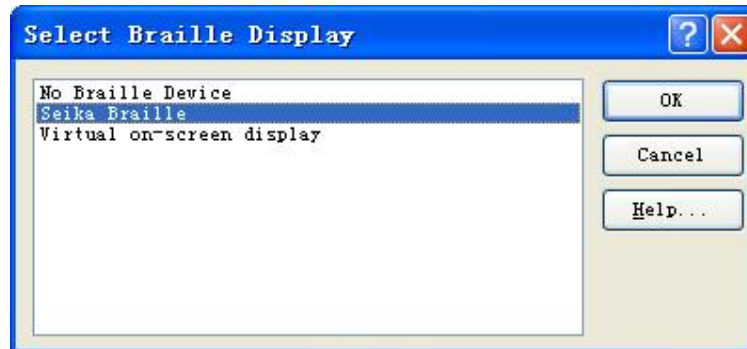
- On the “Hal Control Panel”, select “General Preferences...” from the menu item “Braille”.



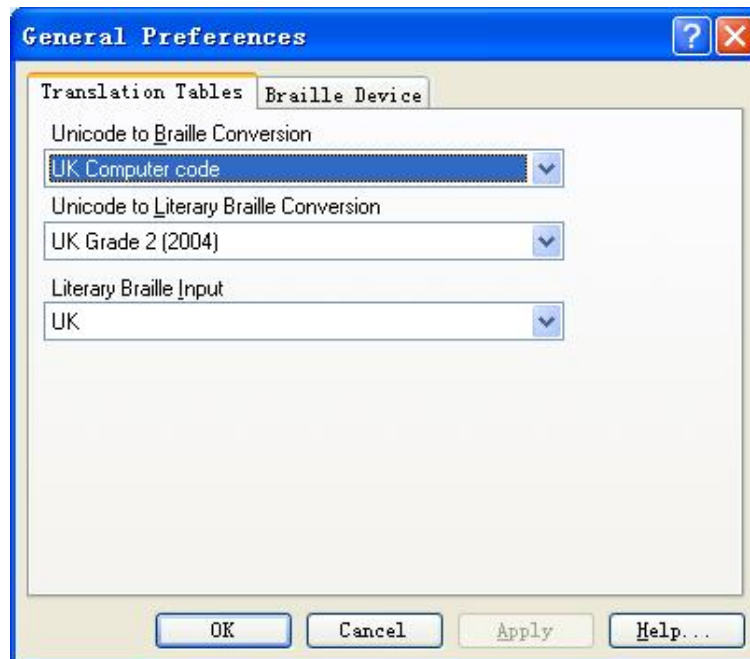
- Select “Braille Device” tab in the “General Preferences” dialog box, tab to the “Select Braille Display” button and press enter.



- Tab to the “Seika Braille” item in the “Select Braille Display” dialog box and press “OK” button.



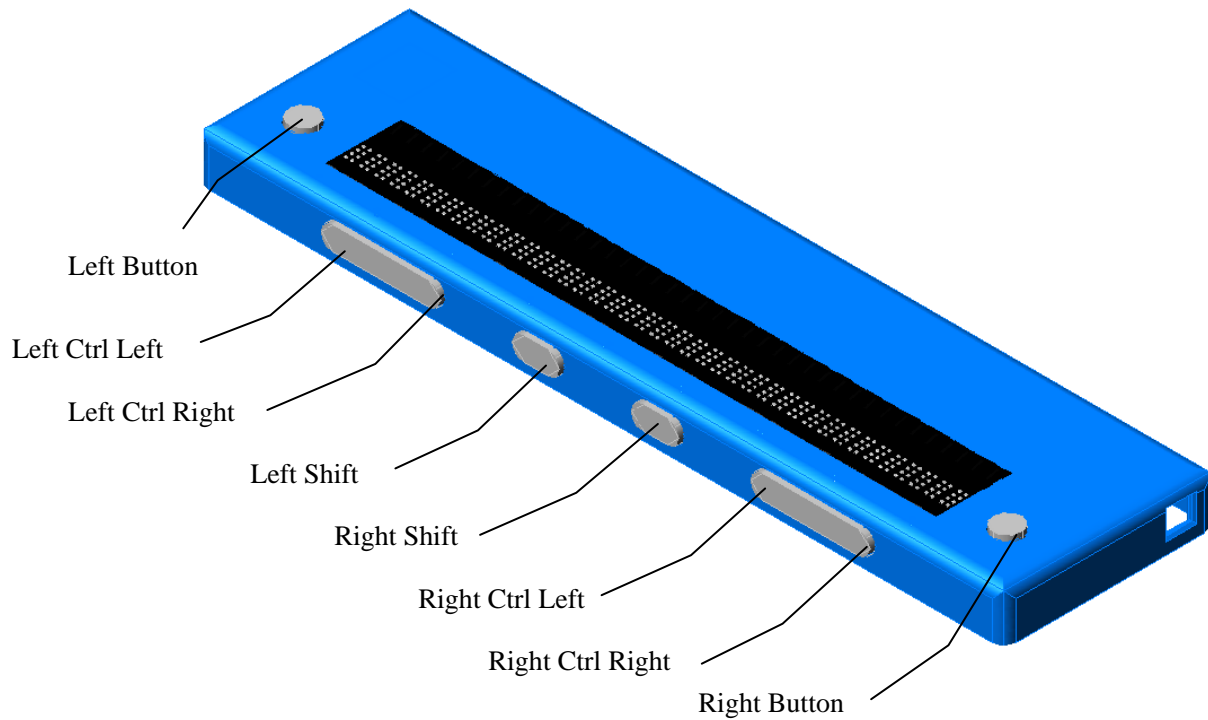
- Select “Translation Tables” tab in the “General Preferences” dialog box. Configure the “Unicode to Braille Conversion”, “Unicode to Literary Braille Conversion” and “Literary Braille Input” according to the local language. Tab to the “OK” button and press enter.



- Restart your HAL and Seika Braille Display will work now.

**NOTE:** If you use another model Seika Braille display, please repeat the step of “1.Working in HAL”.

## 2. Navigation and Control keys function



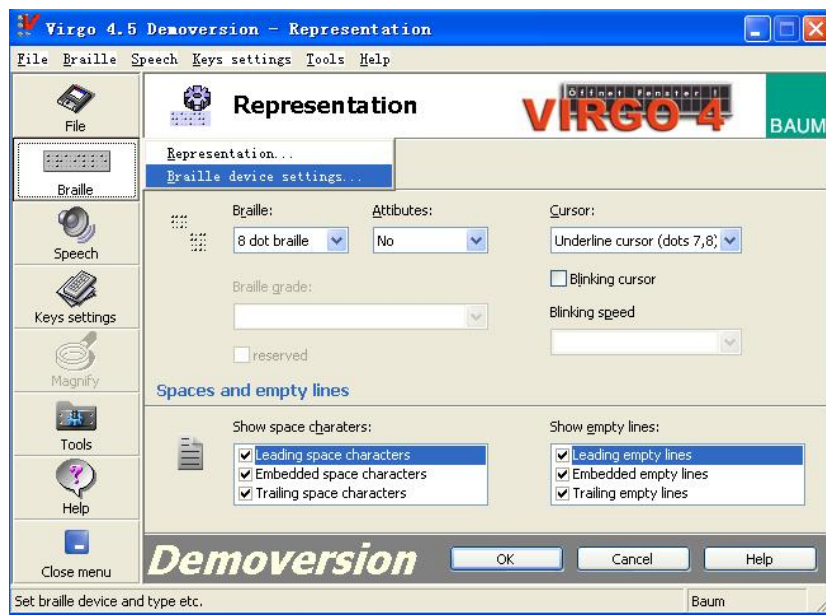
Action	Key press
Action Open Control Panel	Left Button + Right Button
Braille Back	Right Ctrl Right
Braille Forward	Right Ctrl Left
Braille Line up	Left Ctrl Left
Braille Line down	Left Ctrl Right
Braille Go To Focus	Left Shift
Braille Line Start	Left Button + Right Ctrl Right
Braille Line End	Left Button + Right Ctrl Left
Braille Top	Left Ctrl Left + Right Ctrl Right
Braille Bottom	Left Ctrl Right + Right Ctrl Left
Braille Cell Left	Right Ctrl Right + Right Button
Braille Cell Right	Right Ctrl Left + Right Button

Braille Physical/Logical Mode	Left button + Left Ctrl Left
Braille Literary Braille on off	Left Button + Left Shift
Braille Cycle Attributes	Left Ctrl Left + Right Button
Braille Describe Character on off	Left Shift + Right Button
Braille On Off	Left Button + Left Ctrl Right
Braille Monitor on off	Left Ctrl Right + Right Ctrl Right
Braille Hooks on off	Left Button + Right Shift
Braille tracking on off	Right Shift
Braille Enhance on off	Left Ctrl Right + Right Button
Custom Global Speak Time and Date	Right Ctrl Left + Right Ctrl Right
Simulate Key Press Up	Left Ctrl Left + Left Shift
Simulate Key Press Down	Left Ctrl Right + Left Shift
Simulate Key Press Left	Left Shift + Right Ctrl Left
Simulate Key Press Right	Left Shift + Right Ctrl Right
Simulate Key Press Enter	Left Ctrl Right + Right Shift
Simulate Key Press Tab	Right Button
Simulate Key Press Shift Tab	Left Button
Simulate Key Press Escape	Left Ctrl Left + Right Shift
Simulate Key Press Windows	Right Shift + Right Ctrl Left
Simulate Key Press Alt	Right Shift + Right Ctrl Right
Speak Keys Where am I?	Left Shift + Right Shift
Text Input Enter	Left Ctrl Right + Right Shift
Virtual Focus Move Physical Up	Left Ctrl Left
Virtual Focus Move Physical Down	Left Ctrl Right
Virtual Focus Physical on off	Left button + Left Ctrl Left
Virtual Focus Previous Line	Left Ctrl Left + Left Shift
Virtual Focus Next Line	Left Ctrl Right + Left Shift
Virtual Focus Interact with control	Left Ctrl Right + Right Shift
Virtual Focus Next Object	Right Button
Virtual Focus Previous Object	Left Button

## Chapter 7 – Using Seika Braille Display with Virgo

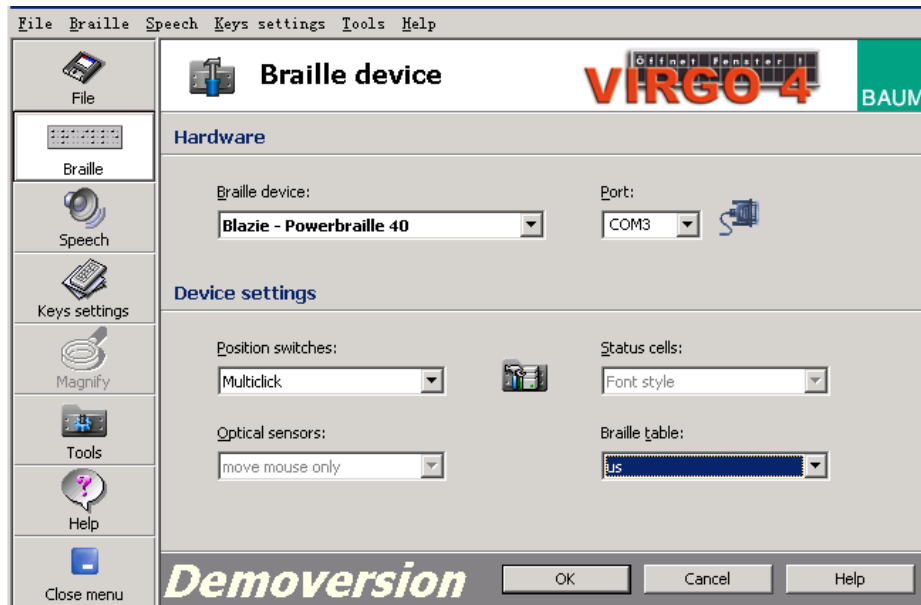
### 1. Configuring Virgo

- Connect the Seika display.
- Start Virgo.
- Open the “Representation...” dialog box in the “Braille” menu.



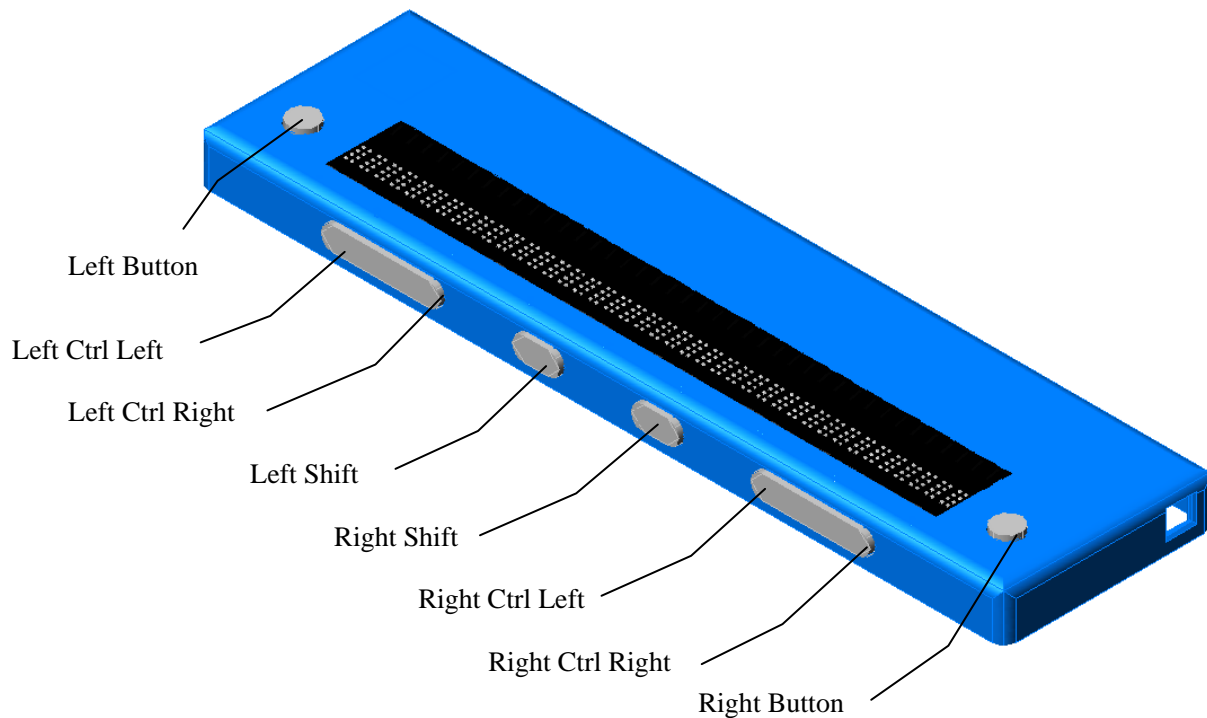
In “Braille” list, select “8 dot braille”. And in “Cursor” list, select “Underline cursor (dots 7,8)”.

- Open the “Braille device settings...” dialog box from the “Braille” menu.



- In “Braille device” list, select “Blazie-Powerbraille 40” .
- In the “Port” list, select the port that corresponds to the COM port number that was displayed after you installed the seika driver in the Chapter 3 (If you forget the COM port number, refer to Chapter 3, run the appropriate Seika driver setup based on different operating systems, select “Read Virtual COM Port”, and the Seika COM port are displayed)
- Tab to the “OK” button and press enter.
- Restart Virgo.

## 2. Navigation and Control keys function



### Action

Scroll left  
 Move navigation to focus  
 Configure speech output  
 Scroll right  
 Previous item or up screen  
 Move mouse pointer to navigation  
 Window specific help  
 Move navigation to the top  
 Speech output on/off  
 Next item or down screen  
 Show Virgo menu  
 Move navigation to the bottom  
 Single left virgo click (mouse click)  
 Single right virgo click (mouse click)  
 Move up hierarchy  
 Move navigation to mouse pointer  
 Move down hierarchy

### Key press

Left Button  
 Left Button + Right Button  
 Left Button + Right Ctrl Right + Right Button  
 Right Button  
 Left Ctrl Left  
 Left Button + Left Ctrl Left  
 Left Button + Left Ctrl Left + Right Button  
 Left Ctrl Left + Right Ctrl Right  
 Left Ctrl Left + Right Ctrl Left  
 Left Ctrl Right  
 Left Ctrl Right + Right Ctrl Right  
 Left Ctrl Right + Right Ctrl Left  
 Left Shift  
 Right Shift  
 Right Ctrl Right  
 Right Ctrl Right + Right Button  
 Right Ctrl Left

## Chapter 8 – Using Seika Braille Display with NVDA

### 1. Configuration of BRLTTY

To use Seika Display with NVDA, you need install BRLTTY (for windows) and configure BRLTTY as follows:

- Make sure that Seika Display driver has been installed successfully and Seika Braille Display has been connected with computer.
- Double click “brlttynf.exe” to chose “Seika” at braille display list
- In the COM port list, select the port that corresponds to the COM port number that was displayed after you installed the seika driver in the Chapter 3 (If you forget the COM port number, refer to Chapter 3, run the appropriate Seika driver setup based on different operating systems, select “Read Virtual COM Port”, and the Seika COM port are displayed)
- Click OK button to save and exit.
- Double click “install.bat” to install BRLTTY service.
- You will hear beeps when BRLTTY starts to work successfully as system service and Braille Display will update display. If not, please reboot computer with connecting display and “brltty.exe” will run automatically.

### 2. Configuration of NVDA

To use Seika Display with NVDA through Brltty, please configure NVDA as follows:

- Run “nvda.exe”, select “preference”, and select “Braille settings”.
- Select “brltty” at Braille display list, click OK to save and exit.

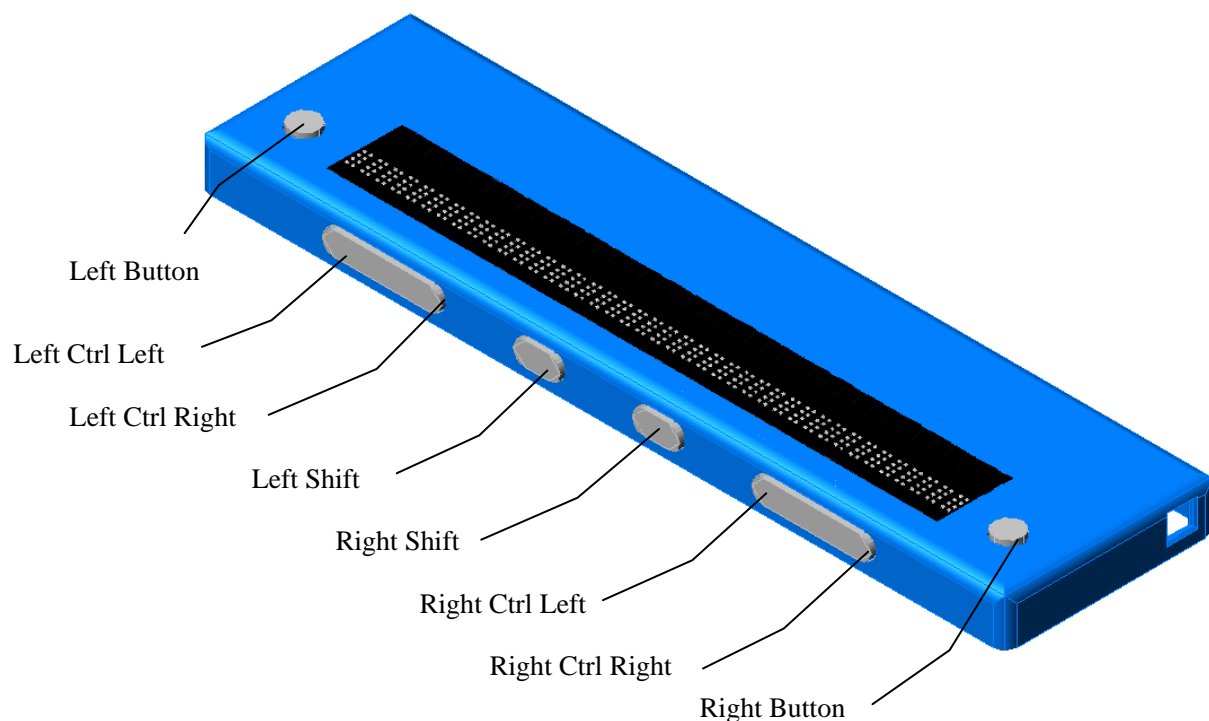


### 3. Reconnection

For any reconnection needs, please reboot computer.or configure Brlty as follows:

- Run “uninstall.bat” to uninstall service.
- Do the same as Configuration of BRLTTY.

### 4. Navigation and Control keys function



Description	Key Press
Scroll Braille Left	Left Button
Scroll Braille Right	Right Button

## Chapter 9 - Display Specifications

Display system	8 dots Braille
Display capacity	40 cells
Navigation and Control keys	8 Control keys
Touch cursor key	40 keys
Character code	original code
Interface	USB
Power supply	bus power
Size	13.3(W) x 3.5(D) x 0.8 (H)inches
Weight	0.5kg

## Q&A

### 1. How to verify which Virtual COM port has been used by Seika Braille Display

- Run appropriate Seika driver setup program according to different windows operating system in your computer (refer to chapter 3).
- Select “Read Virtual COM Port”.
- You will be prompted which Virtual COM Port has been used by Seika Braille Display.
- Press ENTER to back .

### 2. How to uninstall the Seika Braille display driver

- Launch the Windows Control Panel.
- Select “Add/Remove Programs” and press ENTER.
- Remove the Braille display driver :  
For Windows XP, remove “CP210x USB to UART Bridge Controller”.  
For Windows Vista, remove “Seika Braille Display(Driver Removal)”.  
For Windows 7, remove “Seika Braille Display System Driver(Driver Removal)”.  
● Delete the folder in C:\Program Files\Silabs or C:\Silabs.

### 3. If Braille display doesn't work

If the Seika Braille display doesn't work, please check Seika braille display driver.

- Right click the icon of “My Computer” on desktop, and select “Properties”.
- Select “Hardware” on the top menu, and click the button “Device Manager”.

If there are yellow interrogation marks before both the item “Other Device” and its subdirectory “CP2102 USB to UART Bridge Controller” in the catalog, it would mean that Seika braille display driver doesn't work. It is necessary to reinstall the driver.

- Right click “CP2102 USB to UART Bridge Controller”, and select “uninstall”.
- Install the Seika braille display driver (refer to Chapter 3).