

[PENANDFREE]

Legato Air Pen

User Guide

2012-06-20

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1. Before Using the Legato Air-pen

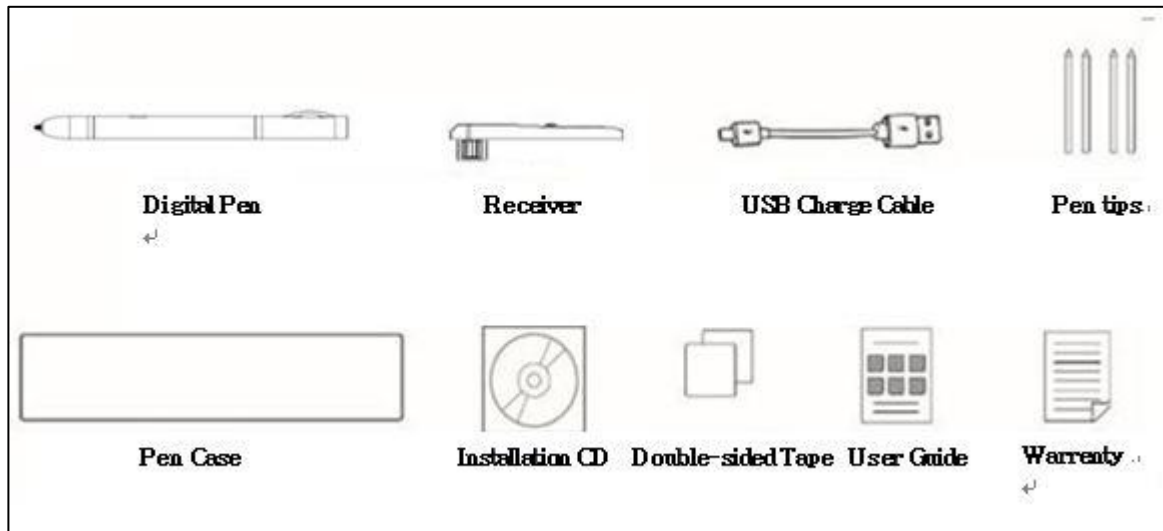
- Thank you for choosing our Legato Air-pen. This device will satisfy you with its portability and outstanding, creative features of an input-pointing device based on PNF's cutting-edge technology and high standards.
- As you follow this installation guides step by step, you will realize how easy it is to learn to install Legato Air-pen.
- As a pen mouse, Legato Air-pen not only realizes the functions of the conventional mouse but also fulfills functions of both pen and gesture in various ways.
- Since it is operated by ultrasonic waves and infrared rays, the product can be affected by external disturbances such as sharp background noises or external infrared radiation.
- This product consists of a set of a digital pen and a receiver. For better use of the product, you need to be familiar with the features of the receiver and the digital pen.
- To use the product properly, make sure to read the installation guide thoroughly before getting started.
- This product has been tested and found to comply with Part 15 of the FCC Rules.
- For performance improvement of the product, some features may be upgraded without notifications to users.

2. What is the Legato Air-pen?

- Legato Air-pen is an innovative digital pen mouse, which adds the combination of the best of both pen and gesture features to that of the conventional mouse.
- Using the Legato Air-pen, you can easily and diversely perform any complicated tasks that are not conveniently done with the conventional mouse, such as sophisticated drawings and lecture note taking.
- With the Legato Air Pen, you can experience the tablet PC features like using annotation, memo and drawing tools of Microsoft Office in person.

3. Your Legato Air Pen at a Glance

- Legato Air Pen consists of a digital pen, a receiver and additional accessories provided by PNF.



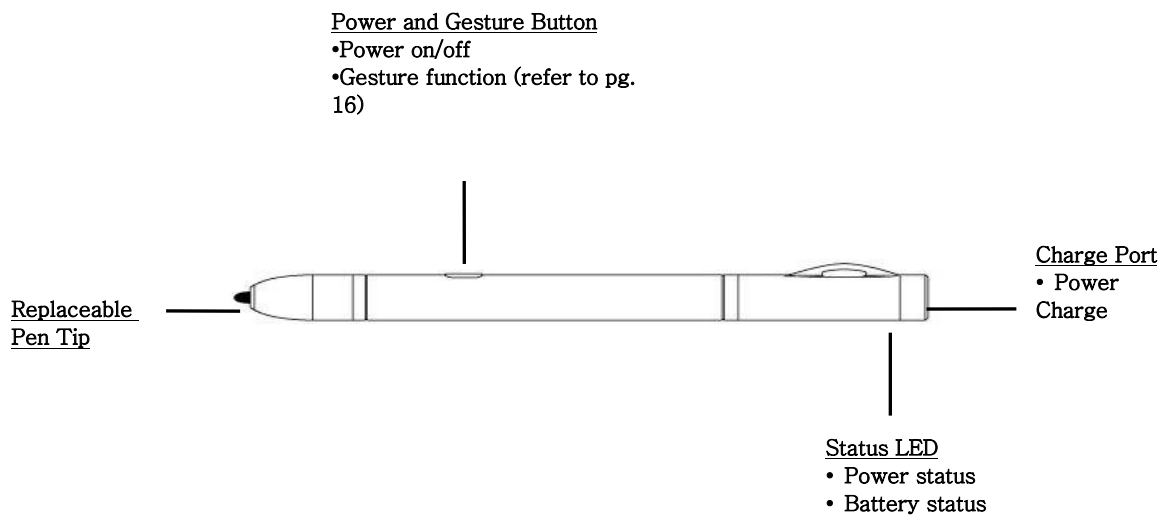
*** Notice:**

- The configuration may not be composed the same as shown in the picture above or may be changed if necessary for quality assurance.
- Legato Air Pen is compatible with the PNF-manufactured digital pen, receiver and accessories only.

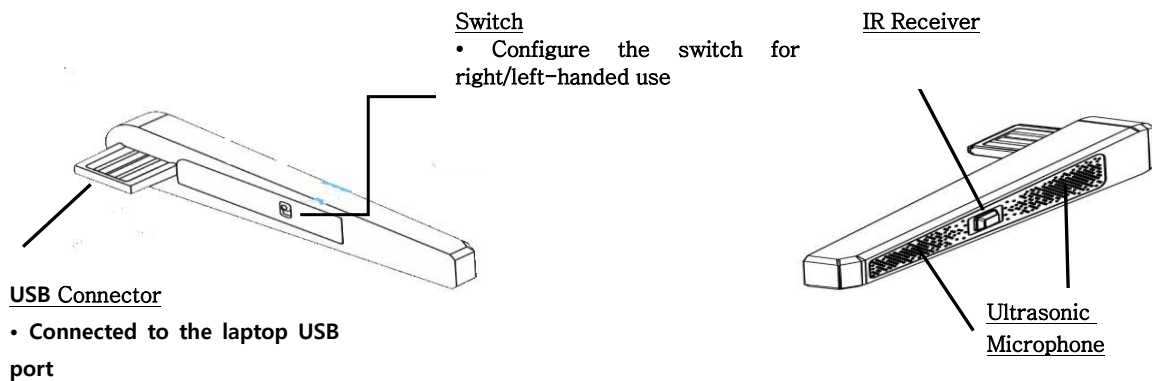
4. Identification of Product Parts

- To use the product more efficiently, it is important to be familiar with the exterior structures of the product.

4. 1 Electronic Pen



4. 2 Receiver



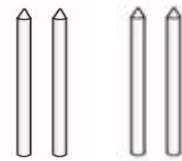
4. 3 Additional Accessories

- The additional accessories are USB sync and charge cable, extra pen tips, a pen case, a software installation DC, and two double-sided tapes.
- The following is the information about how to use the UBS charge cable and the pen tip only.



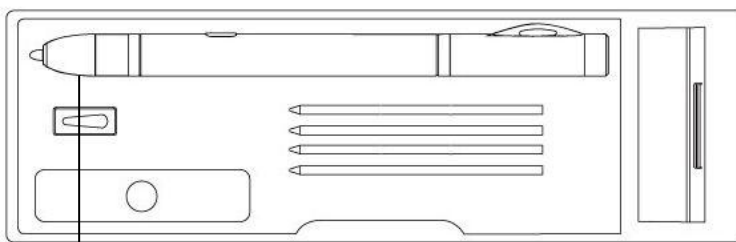
USB Charge Cable

- In order to charge the pen, connect the charging terminal of the cable to the laptop USB port or USB Charger (separate sale) and the USB end to the charging port of the pen



Pen Tips and Lead (2 of each)

- Replaceable depending on purpose of use



Pen Tip Replacing Cast

- Used for pen tip replacement (Leverag Effect applied)

Plastic Pen Case

- Keep the pen, receiver and other accessories organized when not in use.

Docking Station for Note Takers

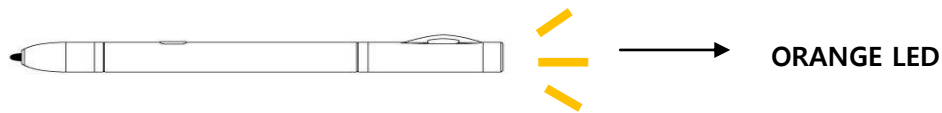
- Connected with the receiver to be use as a note taker (sold separately)

5. Managing the Battery and Power

- Legato Air Pen uses the rechargeable Lithium-Polymer battery to prevent environmental contamination with maximizing user convenience.

5. 1. Turn on/off the Legato Air-pen

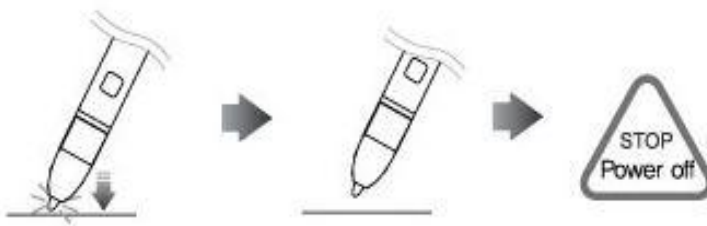
- **Turning on the Legato Air-pen :** To operate the pen, click the power button of the pen lightly.
- If the orange LED blinks for 3 seconds, your Legato Air-pen is turned on correctly and is ready to be used.



- **Notice:** To check if the pen operates normally, touch the pen tip and check if a soft beeping sound is being generated from the pen. (The beeping sound is very soft that it's possible for you to not notice it.)



- **Turning off the Legato Air-pen:** To reduce unnecessary battery consumption, the pen will automatically turn itself off if not used for over 5 minutes. To turn on the pen again, just press the power button for about 2 seconds.



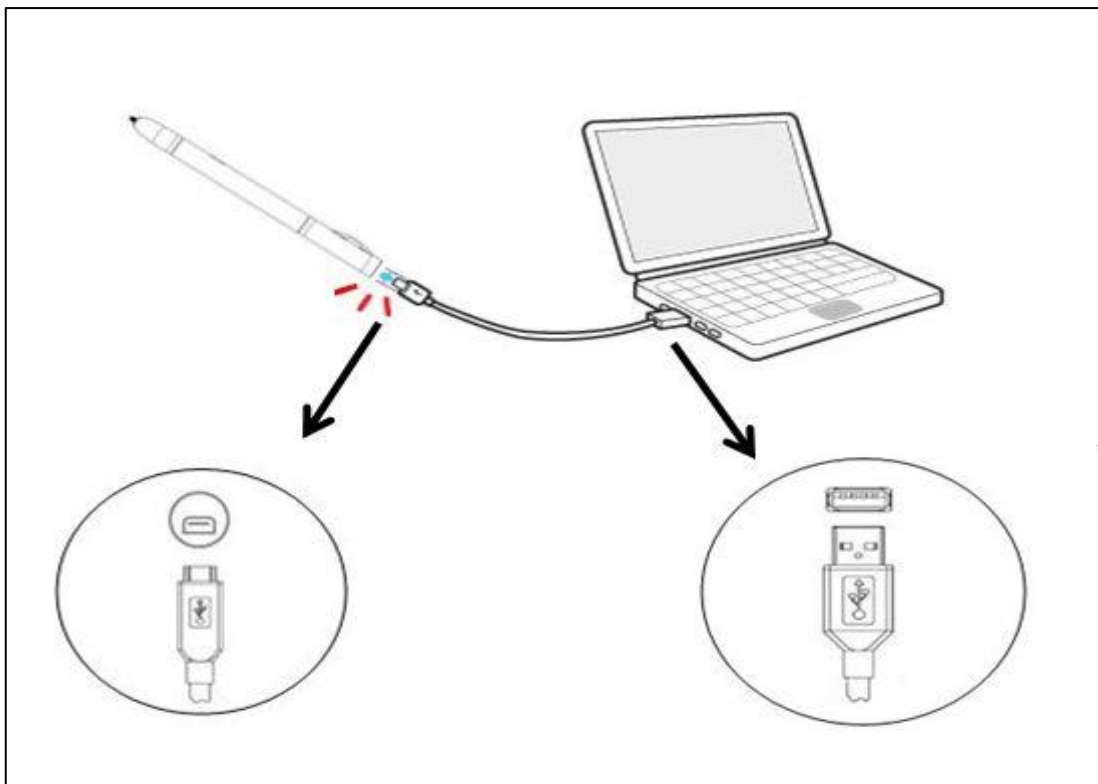
Automatically turns off if not in use for over 5 minutes.

5. 2. Manage the Pen Battery

- If the Legato Air Pen is used for the first time, it is recommended for you to fully charge the pen with the charge cable before use.
- You can use the pen while charging it.
- For the battery to be fully charged, it takes approximately one and a half to two hours.

5.2.1 How to Charge the Pen Battery

- To charge the pen, connect the charging terminal of the cable to the charge port on the back of the pen and then, connect the other end of the cable to the laptop USB port. Whether or not the pen is on, it will be charged as long as it is connected to the charge cable.



* Notice: when connecting the charge cable to the charging port of the pen, check the shape of the USB terminal fits that of the charging port.

5.2.2 Check the LED Indicator

LED Indicator	Status
Blinking Orange LED Quickly	Low battery indicator: Charge the pen with the charge cable.
Green LED Light	Fully charged battery indicator: Disconnect the pen from the charge cable.
Turned off	Check if the charge cable is correctly connected to the pen and USB port.

* NOTICE: Legato Air-pen is compatible with the PNF-provided charge cable only. Do not use any charge cables that are not manufactured by PNF. Otherwise, the digital pen may get damaged functionally. If using USB Charger (separately sold), make sure it is an authentic PNF product.

6. How to Install Software

- To use the Legato Air Pen, you must install the software provided with the product.
 - ✎ **MINT Control** : SW program to set user-defined gestures and control the calibration of the pen.
 - ✎ **MINT Note** : Writing SW program to save, edit and revise annotation, memo, note and drawing and send them to SNS

6. 1 Software Installation Procedures

- The software installation procedures may be different depending on whether your laptop has CD-ROM.

6.1. 1 Laptop with CD-ROM

- 1) Insert the software installation CD into CD-ROM.
- 2) Installation pop-up will be appeared automatically as shown in the picture below.



- 3) Select the language that you want to use during the installation.

The default language is set same as that of the operating system.

- 4) Click "Install" to proceed the MINT Control/Note installation.

- 5) When the installation is complete, click "Finish."

- 6) Ensure that MINT Control and MINT Note icons (as shown in the picture below) are installed on the desktop.



- 7) Connect the Legato Air-pen receiver to the laptop USB port and check if MINT Control recognizes the receiver.

If the receiver is recognized, the screen of the monitor icon on the bottom right toolbar automatically changes its color from gray to blue.



* Items to be verified

- After inserting CD into CD-ROM, if the installation menu does not pop up automatically, execute 'POPStarter.exe' manually.
- With Windows Vista/Windows7 OS, warning messages may pop up. You just ignore the warning.
- If MINT Control is already installed or is a different version, uninstall the existed program and reinstall it with updated version. (How to uninstall the program: Start → My Computer → Local Disk (C:) → Program files → MINT → Uninstall MINT)

6.1.2 Laptop without CD-ROM

- 1) You can download the SW installation program from the PNF website free of charge.

Download URL : <http://www.penandfree.co.kr/english/solutions/download.asp>

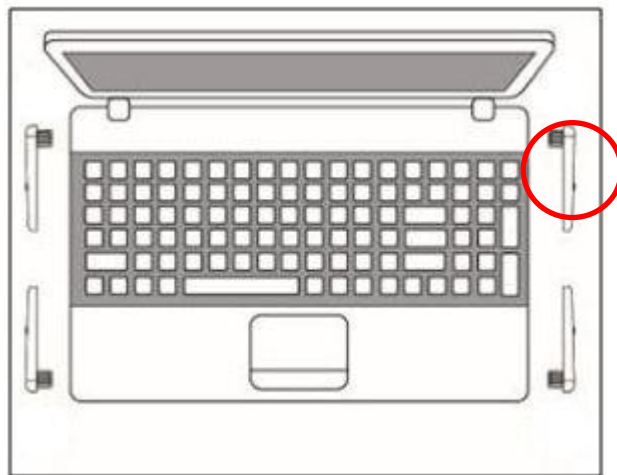
- 2) Extract the downloaded file and execute POPStarter.exe to start the installation.

- 3) Follow the 6.1.1 procedures, starting from Step 3.

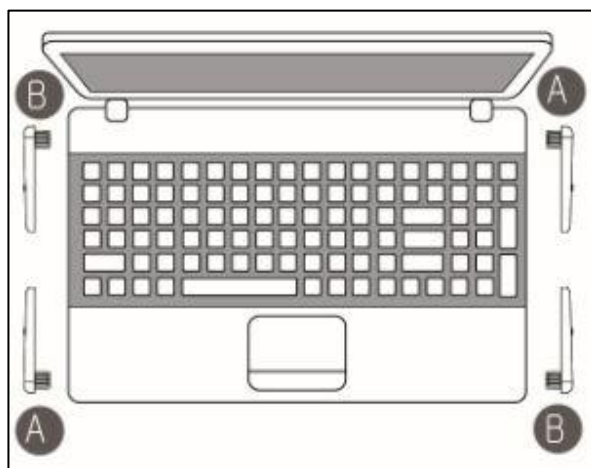
7. Setting up the receiver

7.1 The direction to set up the receiver to the laptop

- If the Legato Air-pen receiver is set up for the first time, the default direction of the receiver setup is set to the right USB port as shown below.



- As shown in the picture below, the user can set how the receiver is set up to the laptop (Type A/B).
(The position of the receiver setup may be changed based on user's preference: right-handed/left-handed)

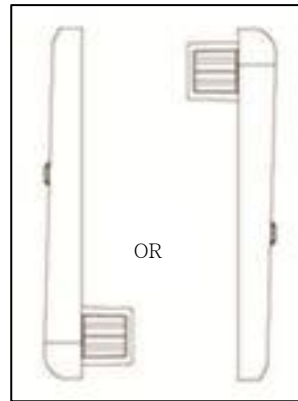
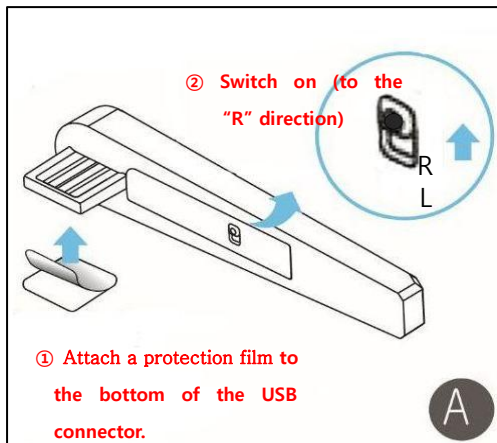


* NOTICE: The positions of A/B types may be different depending on the location of UBS port on your laptop.

7.1.1 How to Set the Type of the Receiver Setup

- Prioritizing user's preference, select the type of the receiver connection.
- Attach a double-sided tape to the back of the UBS connector of the receiver and set up the switch of the pen based on the setup type you select.

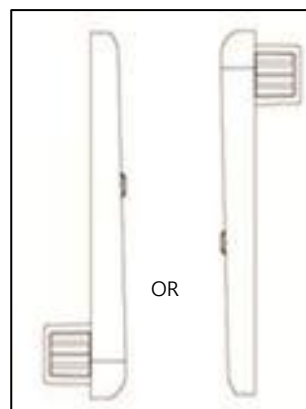
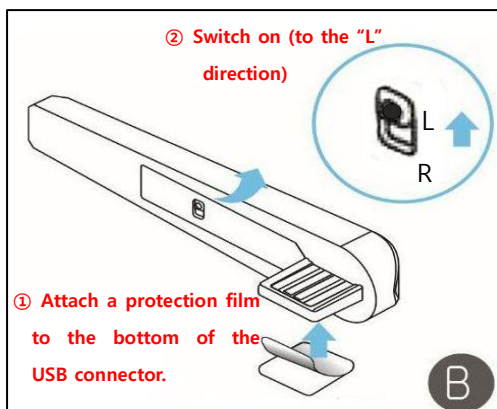
1. A Type



[Directions of the receiver connection to the laptop]

- ① As shown in the picture above, attach the protection film to the bottom of the USB connector.
- ② Flip the tiny switch (inside the receiver) to the "R" direction.

2. B Type

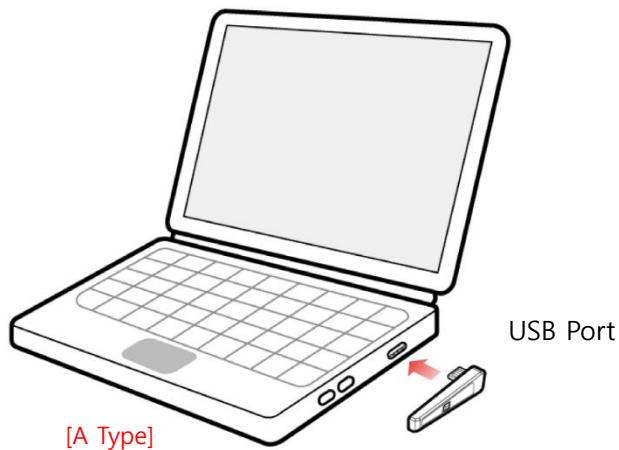


[Directions of the receiver connection to the laptop]

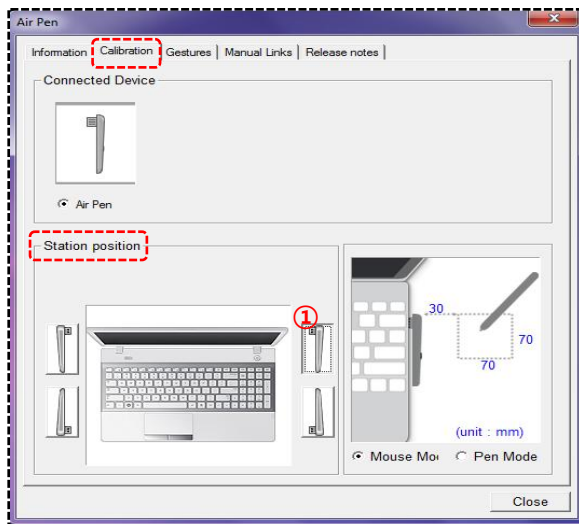
- ③ As shown in the picture above, attach the protection film to the bottom of the USB connector.
- ④ Flip the tiny switch (inside the receiver) to the "L" direction.

7.2 Receiver Setup Procedures

- (1) Select the direction and type of the receiver connection and then attach the receiver to the laptop USB port.



- (2) After connecting the receiver to the laptop, execute 'MINT Control' installed on the desktop.
- (3) Once the program is executed, there should be a pop-up as shown in the picture below.



- (4) Before using the Legato Air-pen, please refer to "8.1.2 Ways to Activate Mouse Mode and Select Area" for more information to maximize user convenience.

8. Main Features of the Legato Air-pen

- This section will inform you of Mouse Mode, Gesture Functions, Pen Mode and Tablet PC Functions.
- You can be skilled with the digital pen pointing and clicking and gesture functions with many practices. To use the Legato Air-pen more conveniently, please read the following information thoroughly.

8.1 Mouse Mode

- Mouse Mode allows the Legato Air-pen free movement within the receiver-operating area. With Mouse Mode, the Legato Air-pen can perform the functions of the conventional mouse, such as pointing, moving cursor, right clicking and dragging.

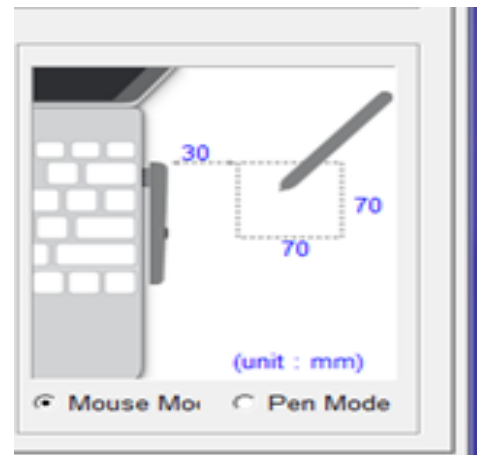
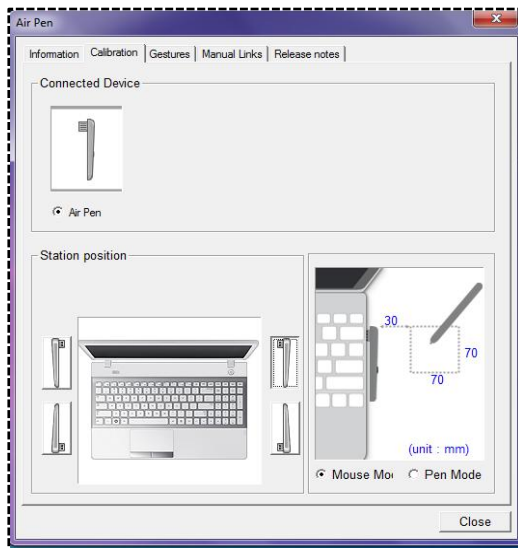
8.1.1 Various Functions of Mouse Mode

- **Pointing function** : Use the digital pen to move the pen cursor (pointer)
- **Mouse click function** : Within the select area, move the pen cursor to any point and click/press the bottom of the pen to activate the mouse click function.
- **Double click function** : Within the select area, click the same spot twice quickly. This function is same as the double-clicking function of the conventional mouse.
- **Right click function** : Locate the pen cursor at a point where you want to right click and press the pen tip for about two seconds to activate this function.
- **Drag function** : Locate the pen cursor at a point where you want to drag. Then, Press the pen tip and slide the pen at the same time to activate the drag function.
- To select text with the pen, click in the left margin and drag the pen to the end of the text you want to highlight.

* NOTICE : When moving the pen cursor or pressing buttons within the select area, you do not need to keep on pressing the pen.

8.1.2 Ways to Activate Mouse Mode and Select Area

- The mouse mode is set as a default mode. You can always select the mouse mode manually.
- (Run 'MINT Control' → 'Calibration' tap → Check the 'Station Placement' → Check 'Mouse Mode' under 'Select Area')
- The select area of the mouse mode is a 70mm by 70mm rectangle that is 30mm away from the receiver as shown in the picture below.



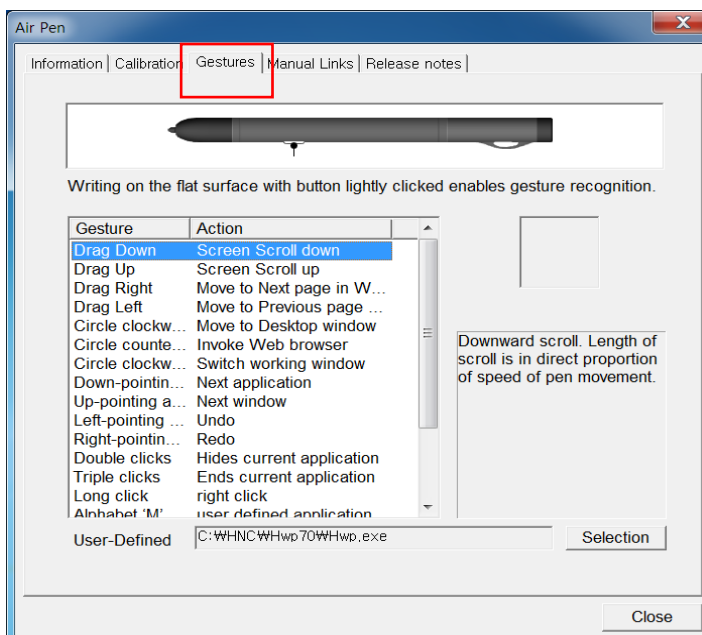
8.2 Gesture Function

- You can use shortcuts to perform various default functions while pressing the pen button.
- You can use keyboard shortcut functions with the gesture function.
- The gesture function consists of 18 default gestures and 1 user-defined gesture.

8.2.1 How to Use the Gesture Function with the Legato Air-pen

a. How to use the 18 default gestures with the Legato Air-pen

- Run 'MINT Control' → Click 'Gestures' tap to see the list of 18 default gestures and their features.




- As shown in the picture below, draw the gestures on any flat surface within the select area while holding the gesture button of the digital pen.

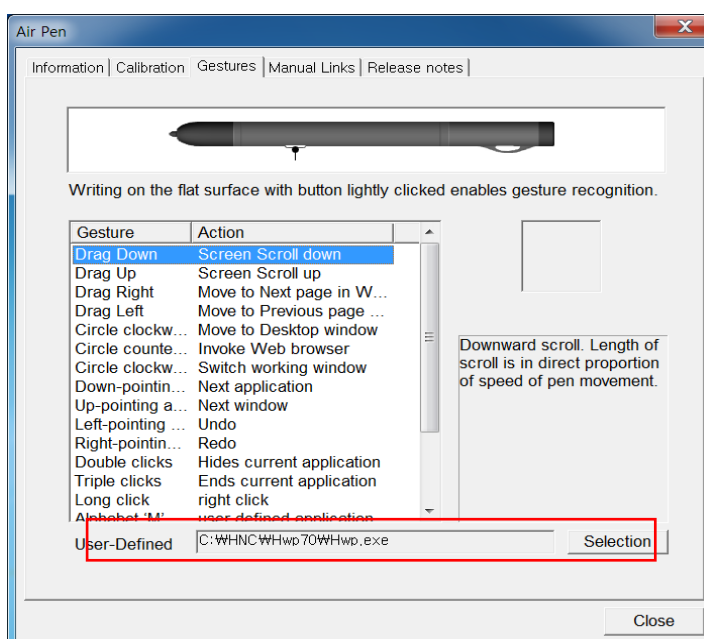


- ex) If you draw the ' < ' symbol while holding the gesture button, your windows will go back to the previous page. Then, there will be a pop-up on the right bottom of the window, notifying you that the left-pointing angle bracket gesture was performed.



















B. How to add a user-defined gesture

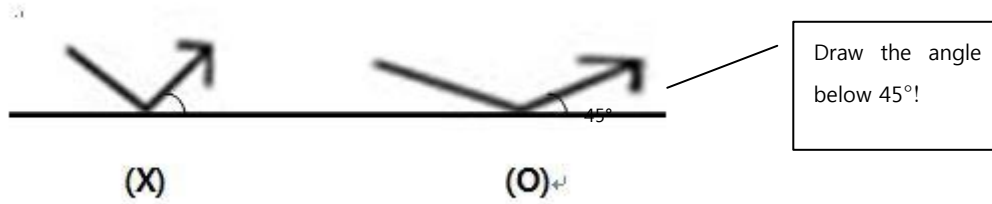
- You can add a frequently viewed file or web page as a user-defined gesture.
 - **How to add a user-defined gesture:** Run 'MINT Control' → Go to 'Gesture' tap → 'User-Defined' → Click 'Select' button
- * If you draw the  shape gesture within the select area while holding the gesture button, you can perform the user-defined gesture.



8.2.2 Main Gesture Functions

Classification	Titles	Gestures	Keyboard Shortcuts		Actions
			Windows	Mac	
	Drag Down	Drag from up to down	Scroll down	Scroll down	Scroll down
	Drag Up	Drag from down to up	Scroll up	Scroll up	Scroll up
	Drag Left	Drag from left to right	ALT + ←	Command + [Go to the previous page
	Drag Right	Drag from right to left	ALT + →	Command +]	Go to the next page
	Circle clockwise twice	Circle clockwise twice			Select area change (Pen mode ← → Mouse mode)
	Circle clockwise	Circle clockwise once		F11	Show/hide Desktop
	Circle counterclockwise	Circle counterclockwise once			Open the Internet Explore
	Down-pointing angle bracket	Draw a down-pointing angle bracket	ALT + tab	F9	Show all open windows
	Up-pointing angle bracket	Draw a up-pointing angle bracket	Ctrl + tab	F10	Show all windows of current application
	Left-pointing angle bracket	Draw a left-pointing angle bracket	Ctrl + Z	^ + ←	Undo the last operation
	Right-pointing angle bracket	Draw a right-pointing angle bracket	Ctrl + Y	^ + →	Redo the last operation
	Alphabet 'Z' shape	Write alphabet 'Z'			Run MINT Note
•x2	Double clicks	Double-click		Command + H	Hide the focused window
•x3	Triple clicks	Triple-click		Command + Q	Quit application of current window
•	Long click	Long click			Right click
	Alphabet 'W' shape	Write alphabet 'W'	Ctrl + S	Command + S	Save
	Alphabet 'M' shape	Write alphabet 'M'			Perform the user-defined gesture
	Shape rotated left 90° for 'M'	Draw a left-90°-rotated M shape	Ctrl + O	Command + O	Open a file
	Shape rotated right 90° for 'M'	Draw a right-90°-rotated M shape	Ctrl + N	N	Open a new window

* NOTICE: When the pen recognizes down/up angle brackets, angles of the down/up angle bracket gestures are extremely important when they are very important for the pen to recognize those gestures. Make sure to keep the angle below 45° as shown below.




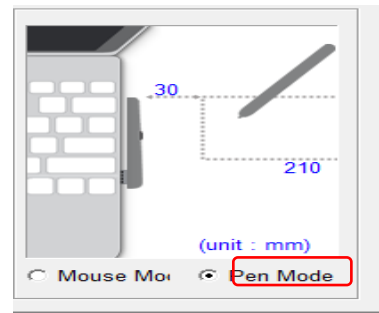
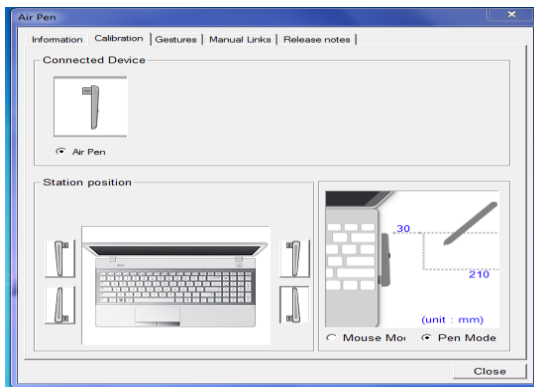
Gesture	Wrong Action	Correct Action
Angles of the down-pointing gestures		
Angles of the up-pointing gestures		

8.3 Pen Mode


- Pen mode makes it easier to express detailed drawings and writings on a select of a receiver, all of which are hard to express with the conventional mouse.

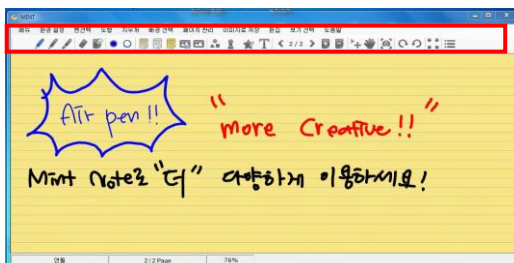
8.3.1 How to use the pen mode and select area

- Through  gesture, utilize 'Pen Mode', or selectively use 'Pen Mode' through 'MINT Control'.
- When using MINT Control, execute 'MINT Control' -> 'Calibration' tap -> Set up the 'Station Placement' -> Set up 'Pen Mode'.
- As shown in the picture below, the select area of Pen Mode is defined by a rectangle with a width of 210mm * length of 118mm



8.3.2 The main function of 'Mint Note'

- 'Mint Note' enables a smooth drawing and touching of pen and brush.
- **How to use MINT NOTE**
 - ☞ 'MINT Note' can be immediately executed using  gesture function.
 - ☞ 'MINT Note' can be utilized by an icon on the desktop.
- As shown in the menu of picture below, a variety of graphic application tools can be utilized when executing MINT Note.



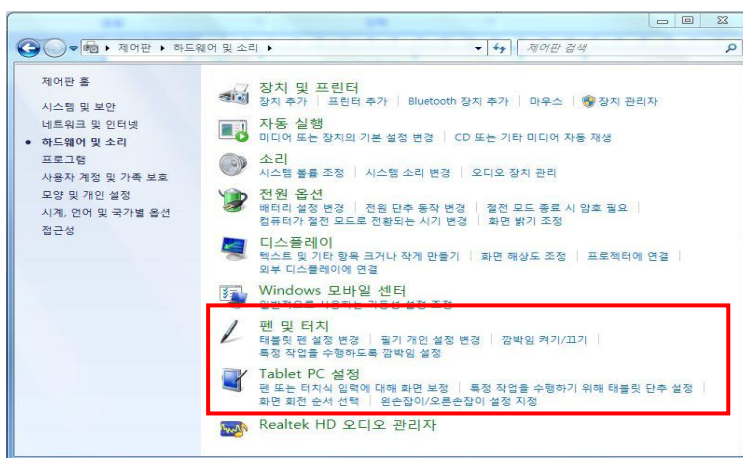
* Confirmation : For more information about a variety of functions of MINT Note, please refer to 'MINT Control' -> Click the instruction (description) tab -> refer to p. 32 for software instructions.

8.4 Tablet PC Function

- Legato Air Pen easily realizes the function of a tablet graphic pad by completely supporting the function of Microsoft Tablet PC on a regular laptop.
- The ink pen tool of Microsoft Windows Office can be used without the installation of any software.

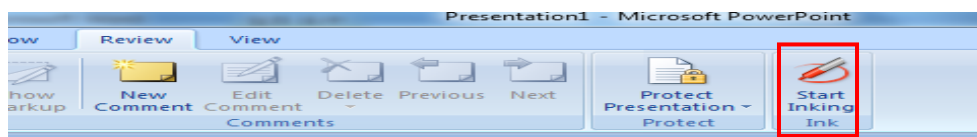
8.4.1 How to set up and verify the tablet function

- Control Panel -> Hardware and sound-> 'Pen and touch function' and 'Tablet PC setup' can be set up according to the user interface. (Refer to the picture below)

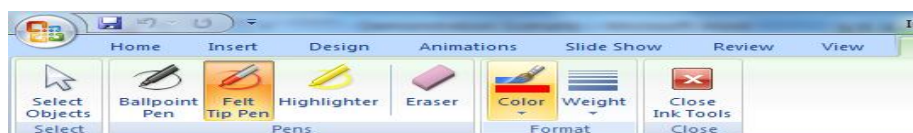


8.4.2 Tablet Pen Function

- **How to use the pen function on MS Office :** After executing MS Office, it can be used by clicking the 'Menu' tab -> 'Review' -> 'Start Inking'. (All of the menus above are consistent on Microsoft Office.)



- **How to use the ink tool:** As shown in the picture below, it can be used immediately by clicking 'Start Inking' button.



* Caution: The ink tool bar above appears on the operating system of Windows Vista Home Premium or higher, and the version of Microsoft Office 2007 or higher. The menu could appear a little differently on the lower versions of the operating system.

9. Product Specifications

Operating size	158mm ~ 210mm diagonal (A5)	
Technology	Ultrasonic and infrared	
Sampling rate	Over 70Hz	
Device standard	HID pen device	
Resolution	About 600 DPI (Sampling) / Valid with 0.2mm	
CPU	Over 1 GHz	
RAM	Over 512 MB	
WINDOWS OS	Windows XP / Vista (32bit) / 7	
Mac OS	Over 10.5	
Interface	USB port / CD-ROM driver	
Operating Temperature / Humidity	0~40 C / 20~ 80 % RH	
Storage Temperature / Humidity	-20~60°C / 20~90% RH	
Station	Power source	DC 5V (USB)
	Power consumption	450mW
	Station Size / Weight	(W)77mm X (D)58mm X (H)8.5mm / about 17g
Pen	Power source	Li-Polymer battery (55mAh)
	Power consumption	33mW
	Pen Size / Weight	(W)130 X (D)16.5 / App. 17.5g(including pen tip, batteries)
	Pen Lifetime	Lifetime in does not work – App.7 months Lifetime in normal usage – App. 1 week

10. Troubleshooting

If there are any problems with the digital pen or the receiver, please read through the chart below for solutions.

Problems	Solutions
The pen is non-responsive.	The pen may have run out of battery. Please fully charge the pen and try to use it again.
Text keeps being cut off or broken.	External disturbances such as sharp noises or lights may be affecting the receiver. Please relocate your receiver to avoid the
The pen jiggles, or the text is garbled.	Reset the direction of the receiver.
Not all text I attempt to write is recorded.	Make sure you are not blocking the ultrasonic microphone and IR receiver with hands.
The pen does not work even when connected to the receiver.	Make sure if the receiver is connected to the USB port correctly. Or remove dirt or other foreign substances on the USB port if any.
The pen doesn't charge when connected to the charge cable.	Make sure if you are using an authentic PNF charge cable.