# Smart Sheet and Smart Pen

## User Manual

pen laboratory

# Table of Contents

**Please read this User Manual carefully before using the product.**

◆ We will not compensate for any damage caused by the use other than specified in the User Manual.
◆ Please keep the User Manual and Product Warranty in a safe place.

## ●●●● Package Content



Smart Sheet               Smart Pen            Pen Cap

Bluetooth Dongle         Software CD         USB Charging Cable

Three Replacement Pen Tips       Dedicated Paper (Sold Separately)

✿ The beam projector and PC are not included in the package. To use the smart sheet, you need them. If you need to purchase a new beam projector, Please refer to **Chapter 2. Installing Product: Selecting Beam Projector**.

✿ The Bluetooth dongle may not be provided depending on the product. One or two smart pens are included with the product.

✿ To purchase the dedicated paper, which is not included, please contact your sales representative or our head office.

✿ The design and specifications of the parts may be changed without prior notice to improve product performance.

# Product Specifications

## Smart Sheet Specifications

| | |
|---|---|
| Product name | Interactive SmartSheet (PWS-92W / PWS-150W ) |
| Product size (mm) | PWS-92W : 2000 (W) x 1200 (H) PWS-150W: 3600 (W) x 1200 (H) |
| Product surface | High-strength non-gloss surface treatment (reflection coefficient of 12 or less) |
| Remark | Power consumption : 0W |

## Smart Pen Specifications

| | |
|---|---|
| Product name | SmartPen Blue |
| Resolution | 600 DPI |
| Usage duration | Consecutive use : 3 hours Standby : 10 hours (Power ON) |
| Bluetooth specifications | Ver 2.0 / Class2 Frequency : 2.4 GHz |
| Usage distance | 10 m or less |
| Power | 3.7 V Lithium Polymer Battery |
| Charging time | 2 hours or less (USB charging) |
| Size (mm) | 158 (L) x 20 (H) x 18.5 (W) |
| Weight (g) | 33 |

⚠️ **You can use the provided smart pen to write or draw on the sheet. Do not use the oil-based marker pen for whiteboard, as it damages the surface of the product.**

⚠️ **If this product is supplied to/installed in classrooms, the smart sheet specifications may be changed.**

## ●●●● Operating Principles



◆ For lectures or presentations, you can project a PC screen to the smart sheet using a beam projector.

◆ If you use the smart pen to control the program or write or draw on the smart sheet to which the PC screen is projected, the information is sent to the PC via the Bluetooth wireless communication.

◆ Then, the information is processed by the PC and projected to the smart sheet by the beam projector again.

As a result, the content you wrote using the smart pen or the program control data is reflected on the smart sheet again.

◆ The main technologies of this product are the micro-code for location recognition printed on the surface of the smart sheet and the wireless smart pen that recognizes and transmits the location information.

◆ This product supports all functions provided by a general smart sheet, allowing you to control various programs as well as write the content you want. It also supports various functions of a tablet.

◆ This product is a smart sheet solution of a new concept that operates based on the principle completely different from the existing digital whiteboard.

Therefore, writing or screen control using your hand or a stylus pen is not allowed.
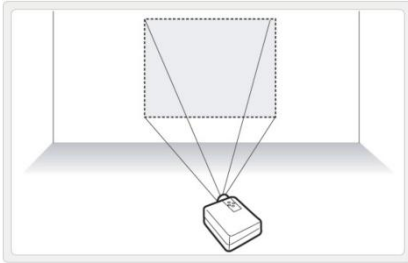
⚠ **To use this product, a beam projector and PC (laptop or netbook) are required in addition to the smart sheet and smart pen included in the package.**

⚠ **This product is not operated by hand touch. To use this product as a digital board, you must use the smart pen.**

## ●●●● Installing the Smart Sheet

### Installation Procedure

**Step 1**  **Designate the smart sheet installation area.**

Use a beam projector to project the PC screen to the wall to mark the location where the smart sheet should be installed.

⚠️ **This process marks the location for installing the sheet. Keep in mind the screen height as you need to write on the sheet.**

**Step 2**  **Check the direction of sheet**

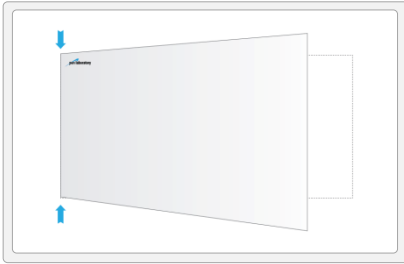Make sure that the logo is located on the top left of the sheet.

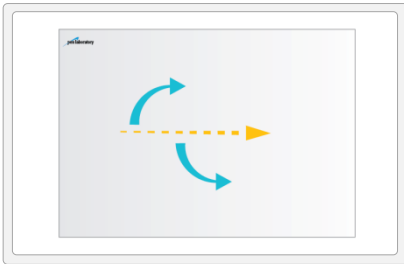**Step 3**  **Remove the adhesive paper**

Remove the adhesive paper of back.

## ●●●● Installing the Smart Sheet



**Step 4**  **Fix the edge**

After the sheet is tailored so that the horizontal, and Fix the edges of smart sheet.



**Step 5**  **Attach whole area.**

Attach slowly outward from the center.

⚠ **Be careful that air bubbles are occured.**

▶ Make sure that the smart sheet is level before attaching the sheet.
▶ Install the smart sheet as closely to the wall as possible.

# Installing the Smart Sheet

## Selecting Beam Projector

To use the smart sheet efficiently, it is important to select a suitable beam projector.
To select a suitable beam project, refer to the following:
(Note) If you use a short throw beam projector, you can minimize the blocking of the screen due to the user.

| | |
|---|---|
| **Brightness (ANSI lm)** | This indicates the brightness of the projected screen. The higher the brightness, the better the projector. 1000 ANSI : Brightness at which you can view the image from the projector under average lighting conditions in the indoors environment 2000 ANSI : Brightness at which you can view the image from the projector under the better-than-average lighting conditions 3000 ANSI : Brightness at which you can view the image from the projector in large conference rooms or auditoriums |
| **Resolution** | In general, XGA (1024X768) or higher is sufficient. If you want to use wide images, the screen should be WXGA (1280X800) or higher. |
| **Screen Size** | The larger the provided screen size is, the clearer the projected screen is on the smart sheet. But to have a larger screen size, the distance between the smart sheet and the beam projector should be longer. Besides, if the screen is larger, the screen brightness becomes darker. |
| **Focus** | If the focal distance is shorter, the beam projector can be installed closer to the smart sheet, reducing blocking of the screen as well as light reflection. A short throw beam projector has a shorter focal distance than general beam projectors. |
| **Contrast** | This indicates the difference in luminance. Higher the value, the clearer the screen. |
| **Lamp Lifespan** | The longer the lamp lifespan is, the longer you can use the projector. |

## ●●●● **Installing Drivers and PenlabMgr Program**

◆ To use this product, you need to install the drivers and the PenlabMgr program first.
◆ If you install them for the first time, Microsoft .NET Framework and Windows Installer may be installed.
◆ After installing PenlabMgr, be sure to read this User Manual before using the smart sheet.

(Note) PenlabMgr is a pen control program for using the smart sheet and smart pen. It is different from applications that use the smart sheet and smart pen.

| Minimum Specifications | Recommended Specifications |
|---|---|
| • Intel Pentium 4 2.0 GHz or higher | • Intel Core 2 Duo 2.0 GHz or higher |
| • 1 GB or larger memory | • 2 GB or larger memory |
| • Windows XP(SP2) or later | • Windows Vista/7 |

### Content of the Installation CD

The Installation CD includes the following:

| Folder Name | Content |
|---|---|
| Manual | It includes the user manuals for the"PenlabMgr" and "SmartClass" programs. |
| PenlabMgr | It includes the installation files for"PenlabMgr". |
| SmartClass | It includes the installation files for"SmartClass", a writing program. |

(Note) This User Manual does not include the content about SmartClass.
For information on SmartClass, refer to the user manual of SmartClass.

### ⚠ Re-installing PenlabMgr

**If you want to re-install PenlabMgr on a PC where the program was installed before, please be sure to go to Control Panel - Add/Remove Programs and delete the previously installed program.
For details on how to delete the program, refer to "Deleting Drivers and PenlabMgr" on the page 10.**
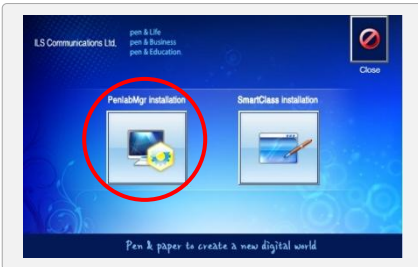
## Installing Drivers and PenlabMgr

Step 1 **Connect the Bluetooth dongle.**

As shown in the figure, connect the provided Bluetooth dongle to a USB port of the PC.

⚠ **Depending on the user environment, a message may appear to prompt you to select a device driver. But ignore the message as the necessary drivers are installed later during installation.**

Step 2 **Start installing the program.**

Insert the installation CD to start the installation program automatically as shown in the figure.
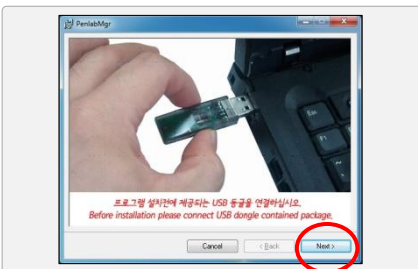If it does not start automatically, find and run **PenlabInstallSolution.exe** in the CD.

Click "PenlabMgr Installation" to start installation.

⚠ **Make sure that the Bluetooth dongle is connected to a USB port before installation as described in Step 1.**

If you install them for the first time, Microsoft .NET Framework and Windows Installer may be installed.
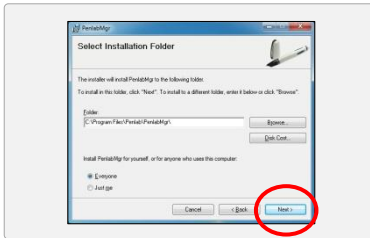
Click [Next] to continue installation.          Click [Next] to continue installation.
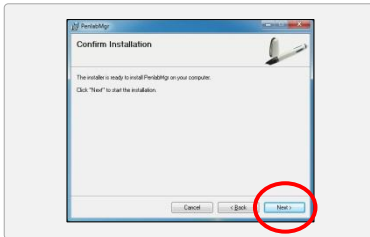
**Be sure to connect the Bluetooth dongle before starting installation. If you don't connect the Bluetooth dongle, the necessary drivers are not installed.**

## ●●●● **Installing Drivers and PenlabMgr**

| Step 3 | **Select the installation folder.** |

Select a folder where you want to install the program.
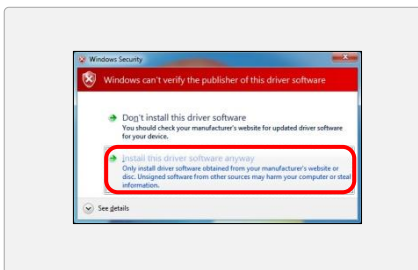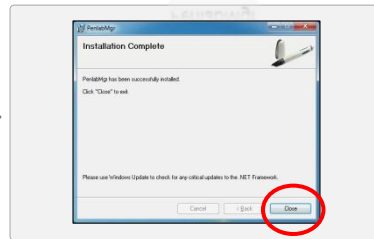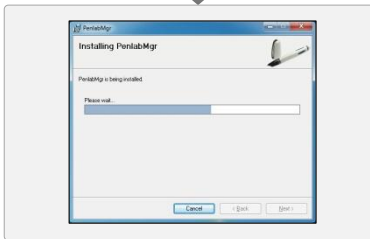If possible, do not change the folder and click [Next] to continue.

| Step 4 | **Perform installation until the program installation is complete.** |

Click [Next] to continue installation.
If the completion window opens, click [Close] to finish installation.

When the PenlabMgr program installation is complete, a shortcut icon is created on Desktop.

**During program installation, a message appears to confirm driver installation as shown in the figure.**

**Be sure to select "Install this driver software anyway".**

**The installation confirmation window may differ depending on your computer environment.**
**Select [Allow installation] or [Continue installation] depending on your computer environment.**

## ●●●●● Deleting Drivers and PenlabMgr

Delete the drivers and PenlabMgr in the same way as you delete other programs.

You can delete them by using Uninstall a program in Control Panel.

If PenlabMgr is running, exit the program before deleting it.
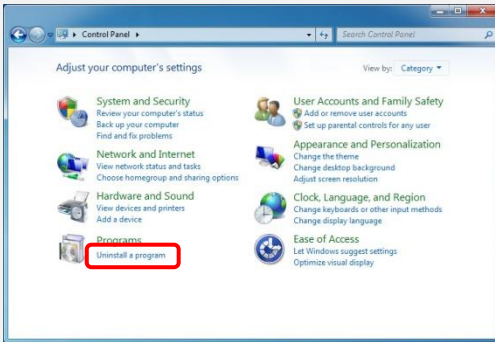
Go to Control Panel and select [Uninstall a program].

⚠️ If PenlabMgr is running, exit it first.
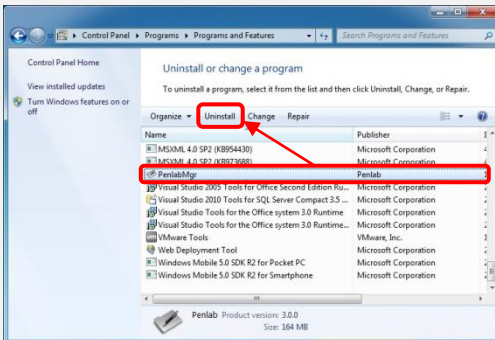
From the program list, select "PenlabMgr"under the Penlab menu and click [Uninstall] to delete the program.

⚠️ The screen may differ depending on the Windows version installed in your PC.
You can delete the program by selecting Control Panel - Add/Delete Programs
regardless of the Windows version

## ●●●● Configuring the Smart sheet for the First Time

⚠ **If you use the smart sheet for the first time, you must carry out initialization such as screen settings and Bluetooth connection. Please check the following to see how to configure the initial settings.**
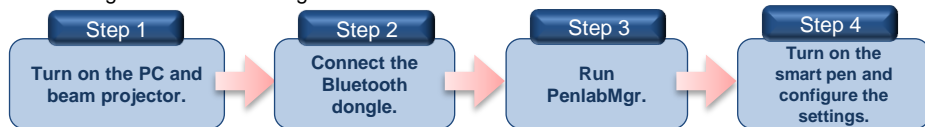
**The provided smart pen and Bluetooth dongle always work in a pair.**
**If you install the product on another PC or move it to another place, make sure that you carry both of them.**

**The smart pen does not work with the Bluetooth dongle sold on the market or the Bluetooth dongle built in the laptop.**
**Make sure that you use the provided Bluetooth dongle.**

◆ Configure the initial settings of the smart sheet as shown below.

| Step 1 | Step 2 | Step 3 | Step 4 |
|---|---|---|---|
| Turn on the PC and beam projector. | Connect the Bluetooth dongle. | Run PenlabMgr. | Turn on the smart pen and configure the settings. |

### Step 1  Turn on the PC and beam projector.

Turn on the computer and beam projector.

### Step 2  Connect the Bluetooth dongle.

Connect the Bluetooth dongle to a USB port.

### Step 3  Run PenlabMgr

PenlabMgr

Click the PenlabMgr icon on Desktop to run the program.

If it runs successfully, a pen-shaped icon appears in red at the bottom right of the screen (system tray).

EN 🕐 🔳 ✏ 🔊 🗔 🟠 🏳 12:37 PM
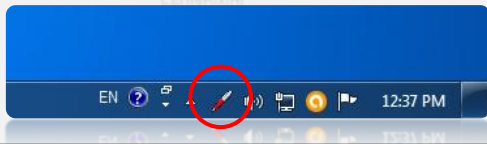
⚠ If you do not connect the Bluetooth dongle, PenlabMgr does not run.
(A message appears to tell you to connect the Bluetooth dongle and run the program again.)

## ●●●● **Configuring the Smart Sheet for the First Time**

**Step 4**  **Turn on the smart pen and configure the settings.**

◆ **Turning on the smart pen and connecting it to the PC automatically**

Run PenlabMgr and press and hold the power button of the smart pen for three seconds to turn on the pen. (Refer to the figure to the right.)

When the pen is turned on, the vibration motor operates for a brief moment. Then, the pen enters the connection standby mode after the status LED flickers red and blue alternately.

If you wait for a while in the connection standby mode, the pen connects to the PC automatically and all LEDs turn off except the black LED, which flickers periodically.

The PC shows a message saying "The pen is connected" and the pen icon on the system tray turns blue.

⚠ The Bluetooth dongle and smart pen are shipped in a pair to ensure that they can be connected automatically. If they are not automatically connected, perform "Smart Pen Pairing" on the page 17.

◆ **Configuring the environment (screen settings)**

To match the location to which the smart pen points with the coordinates of the location on the screen, you need to configure the screen settings.
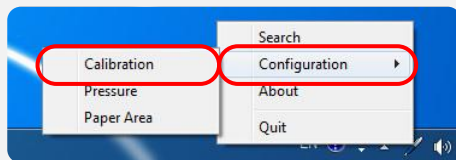
Click the pen icon on the system tray and select [Configuration] → [Calibration].

⚠ **If the smart sheet and beam projector are fixed, you may configure the screen settings only once.**
**If the location of the smart sheet or beam projector is changed, you should configure the screen settings again.**
**The screen settings are stored in the PC. If you change the PC, you should configure the screen settings again.**

Configuring the Smart sheet for the First Time

## Configuring the Smart Sheet for the First Time

◆ **Configuring the environment (screen settings) [Continued]**
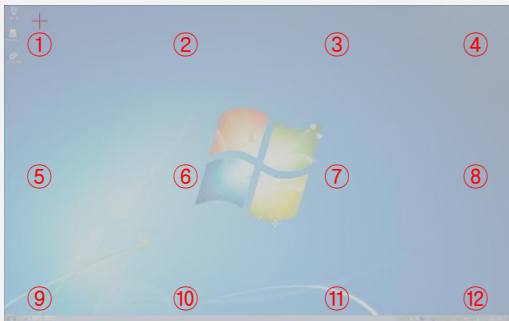


When authentication is completed, a red cross mark appears automatically at the location ① on the translucent screen as shown in the figure.

Use the smart pen to click the center of the cross mark. Each time you click a cross, the next cross is displayed. You need to click 12 points in total.

Once you click all points successfully, a window opens so that you can check if the screen settings are configured properly.
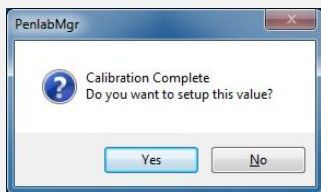


**Screen settings configured successfully**

The left screen appears when the screen settings are configured successfully. Click [Yes] to finish the screen settings.

⚠ **Connect the smart pen first as you can configure the screen settings only after the smart pen is connected.**

⚠ **The screen settings window may differ depending on the program version. Proceed according to the instructions of the program.**

## ●●●● **Using the Smart sheet**

### Starting the Smart Sheet

Turn on the computer and beam projector first and project the PC screen to the smart sheet.

Connect the Bluetooth dongle to a USB port and run PenlabMgr.

Then turn on the smart pen to connect it to the computer automatically.

Finally, run an application to use the smart sheet.

Step 1 **Connect the Bluetooth dongle.**

Connect the Bluetooth dongle to a USB port.

Step 2 **Run PenlabMgr.**

PenlabMgr

Click the icon on Desktop to run PenlabMgr.

If it runs successfully, a pen-shaped icon appears in red at the bottom right of the screen (system tray).

⚠ Be sure to connect the Bluetooth dongle before running PenlabMgr.
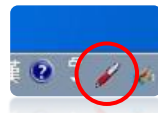
Step 3 **Turning on the smart pen and connecting it to the PC automatically**

Run PenlabMgr and press and hold the power button of the smart pen for three seconds to turn on the pen.

When the pen is turned on, the vibration motor operates for a brief moment. Then, the pen enters the connection standby mode after the status LED flickers red and blue alternately.

## Using the Smart sheet

Step 4 **Check if the smart pen is connected.**



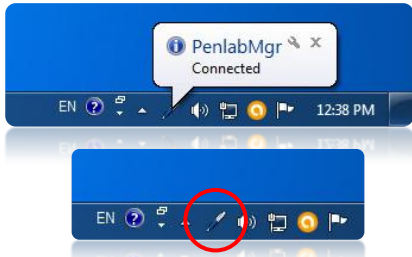If you wait for a while in the connection standby mode, the pen connects to the PC automatically and all LEDs turn off except the black LED, which flickers periodically.

The PC shows a message saying "The pen is connected."
And the pen icon on the system tray turns blue.

Step 5 **Run an application.**

If the pen icon on the system tray turns blue, it mean that the pen is successfully connected to the PC. Now you can use the smart pen to control the PC on the sheet screen.

In addition, you can use a writing program (e.g. Microsoft PowerPoint) to use the sheet as a digital whiteboard. Some examples of use are provided on the next page.

### Exiting the Smart Sheet

To exit the smart sheet, turn off the pen and exit PenlabMgr.
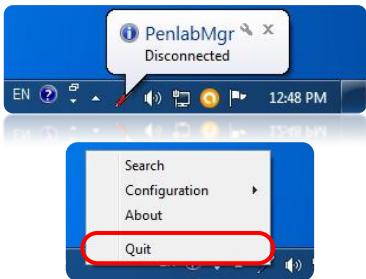


If you turn off the pen, A message saying "The pen is disconnected" appears on the PC and the pen icon turns red.

Click the pen icon and select "Quit" to end PenlabMgr.

⚠️ It doesn't matter whether you turn off the pen first or exit PenlabMgr first.

## ●●●● Using the Smart Sheet

### Examples of Using the Smart Pen and Smart Sheet

#### Controlling the PC

You can use the smart pen and smart sheet to control all functions of the PC.

You can run programs and select menus in the PC using the pen and sheet.

#### PowerPoint Presentation

You can use the product for lectures and presentations.
You can use the writing function of PowerPoint to not only navigate between pages but also enter the text on a slide show.
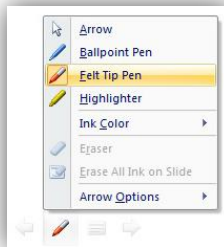
The writing function of PowerPoint

The writing function is found at the bottom left of the PowerPoint slide show screen.
Select a pen to enter the text on the slide show.

▪ You can use the PowerPoint paper (dedicated paper sold separately) to control the PowerPoint program more conveniently.

## ●●●● **Using the Smart Sheet**

### Smart Pen Paring (for Automatic Connection)

⚠️ The Bluetooth dongle and smart pen are shipped in a pair to ensure that they can be connected automatically.
If the smart pen is not automatically connected to the PC as shown in the "Starting the Smart Sheet " section, connect the smart pen as follows:
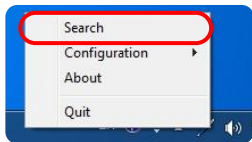


If you run PenlabMgr and turn on the smart pen but the pen is not automatically connected to the PC, click the pen icon on the system tray to display the "Search " window.



With the smart pen turned on, run [Search] to open a search window as shown to the left.
Click [Start scan] to search for available smart pens.

⚠️ When you connect the smart pen, the smart pen should be in the connection standby mode where the status LED flickers red and blue alternately. Refer to the Components of Smart Pen and Its Operating Statuses on the page 18.
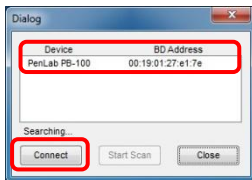


When the search results are shown on the screen, select a device and click "Connect" to connect to the smart pen.

If the smart pen is not in the search results, check the smart pen again and put it into the connection standby mode. Then, execute the search again.



Once connected, the pen icon turns blue and a message appears, saying "Connected".

⚠️ Perform this procedure only when the automatic connection fails.
Once connected, the smart pen and Bluetooth dongle do not need additional configuration.

## ● ● ● ● **Using the Dedicated Paper**

### Using the Dedicated Paper (Optional)

You can use the smart pen on the dedicated paper as well as the smart sheet.

There are two types of dedicated paper as shown below.

Dedicated A4 paper

Dedicated PowerPoint paper

You can use the paper dedicated for smart pen to perform writing or control the PC.
Especially, the paper dedicated for PowerPoint has additional functions usable on the PowerPoint slide show for lectures and presentations.

### Configuring the dedicated paper area
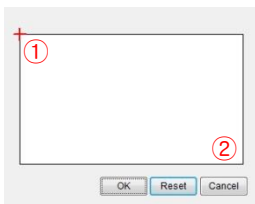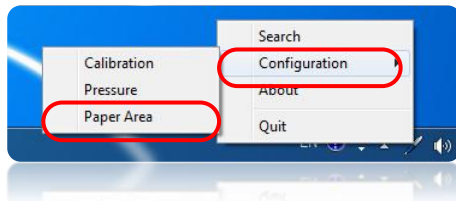
The whole page of a dedicated paper matches the screen of the PC monitor at 1:1.

If you want to use a certain area of the dedicated paper, you should use the "Paper Area" option to match the certain area with the screen of the PC monitor.

Click the pen icon on the system tray and select [Configuration] → [Paper Area].

When a window appears as shown to the left, select the corners of the area you want to use in the order as shown in the figure. Click [OK] to complete the setting. (The settings are automatically stored.)

Run [Reset] to use the whole area of the dedicated paper again.

⚠ **The paper dedicated for smart pen is sold separately.**
**The instructions on how to use the paper dedicated for PowerPoint are provided separately.**

## ●●●● **Using the Smart Sheet**

### PenlabMgr menu.

Click the PenlabMgr icon on the system tray to open the menu as shown in the figure.
The main functions of the menu are as follows:

Search devices to connect a smart pen.

Search

Configuration

About

Quit

Configure the user environment.
(Screen setting, pressure setting, and
area setting)

Calibration

Pressure

Paper Area

Configure the smart
sheet screen.

Configure the smart
pen pressure.

Configure the
dedicated paper area

Check the
program version.

Exit the program.
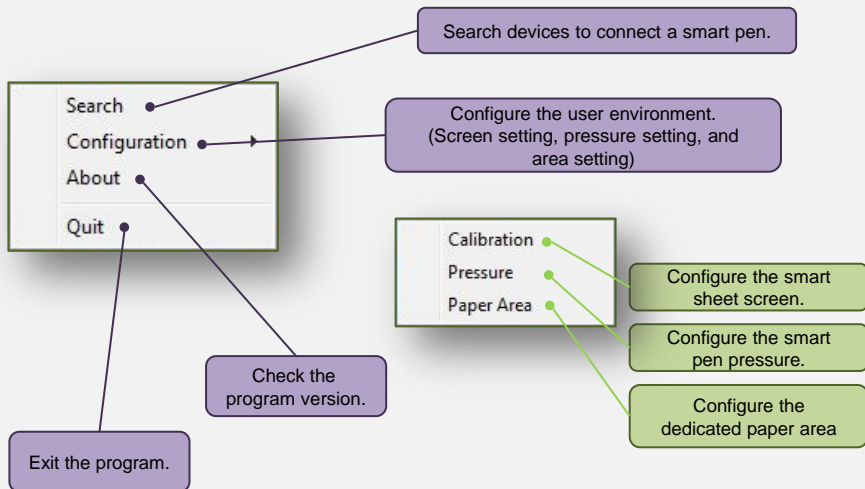
### System tray icons

You can recognize the pen connection and operation statuses from the system tray icons.

Red : The smart pen is not connected. Turn on the smart pen to connect it automatically.

Blue : The smart pen is connected and available for use.

Grey : The Bluetooth dongle is not connected to the PC.
Connect the provided Bluetooth dongle to the PC to change the color to red and
use the smart pen.

# ●●●● Usage Precautions

## Proper posture to use the smart pen

The position recognition function of the smart pen may be affected by how you grab the pen, as the smart sheet and smart pen use the optical position recognition method.

Refer to the following figure to find a proper way of grabbing the pen. It is recommended that you grab the pen as you grab a fountain pen.



Proper grabbing



Do not tilt the smart pen too low.



If you use the other end of the smart pen, it does not work.



The optical sensor of the smart pen faces upwards. (You grabbed it in a wrong direction.)

⚠️ **If you grab the pen improperly, recognition errors may occur.**
**If the smart pen fails to recognize the sheet, vibration occurs.**
**If vibration occurs, refer to the above figures to grab the pen correctly.**

## ●●●● Components of Smart Pen and Its Operating Statuses

Charging Port

Status LED

Power Button

Pen Clip

Optical Sensor

Pen Tip

Pen Cap
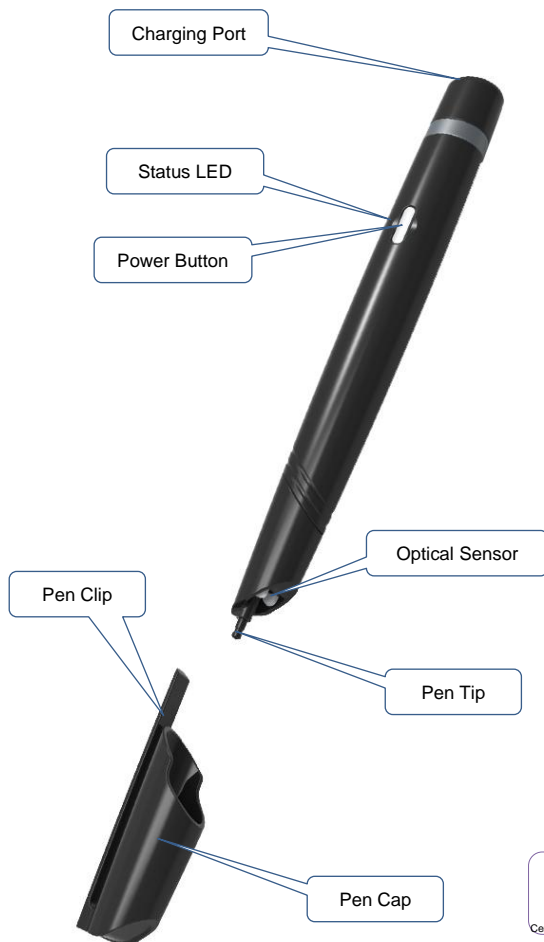
◆ **Turning on the pen**

Press and hold the power button for two to three seconds.
Vibration occurs and the status LED flickers to indicate that the pen has entered the connection standby mode.

◆ **Turning off the pen**

Press and hold the power button for two to three seconds until the status LED turns off.

◆ **LED color  and pen status (StatusLED)**

| | |
|---|---|
| Flickering blue and red alternatively | Waiting for Bluetooth connection |
| Purple | The Bluetooth connection is not established for two minutes or longer. |
| Blue | The Bluetooth is connected and available for use. |
| Red | Battery shortage warning |

◆ **LED color and charging status (Charging LED)**

| | |
|---|---|
| Red | Charging (normal) |
| Blue | Charging completed |

※ This device is not secure and subject to radio interference.

Certification No.: PEN-PB-100-0810

**Bluetooth**

▶ If the battery is discharged, you cannot turn on the power.

▶ You can use the pen while charging through the USB port.

# Charging the Smart Pen and Replacing the Pen Tip

## Charging

You can use a USB port of the computer to charge the smart pen.

During charging, the charging LED turns blue. When charging is finished, the charging LED turns off.

◆ Charging using a USB port : Turn on the computer and use the USB charging cable to connect the pen to the PC as shown below:



Connect the USB charging cable.

Connect the cable to a USB port.

- The pen is automatically charged when it is connected to the computer. You can still use the pen while charging it.
- Do not use other USB charging cables except the provided one. It may cause malfunction or failure.
- If the computer switches to the sleep mode, the pen may not be charged.
- If the charging LED turns red, reconnect the USB charging cable.
  If the symptom continues, contact the customer service center.
- Charge or store the pen at the room temperature. If it is too hot or too cold, charging may take longer or the pen may not be charged.
- The built-in battery is a consumable item and its lifespan becomes shorter with usage. (The warranty for the built-in battery lasts 6 months.)
- It takes about two hours until a discharged battery is full charged. (The actual time may differ depending on the charging environment.)
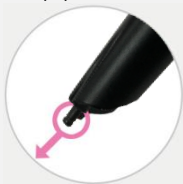
# ● ● ● ● Charging the Smart Pen and Replacing the Pen Tip

## Replacing the Pen Tip

If the plastic pen tip of the smart pen is too worn, the performance of the pen may be affected. if the ball-point pen tip has no ink, you can replace the pen tip as shown below:

(Notice) There are two types of pen tips: a plastic tip for the smart sheet and a ball-point pen tip for the dedicated paper.

1) Hold the end of the pen tip and draw it in the direction of the arrow to remove it as shown in the figure.
   (To remove the pen tip, use the pliers or other tool.)
2) Insert a new pen tip and push it into the pen.
3) Place the tip on a hard surface and push it down until it is fixed completely.

## Mounting/Unmounting the Pen Cap

If you don't use the smart pen or if you are carrying it, keep the pen cap on the pen.

You can mount or unmount the pen cap as shown below:

1) Mounting the pen cap : Align the pen cap's clip with the pen tip and put the pen cap onto the pen.

   ⚠ To mount the pen cap, keep the clip of the pen cap facing upwards as shown in the figure.
   If you don't, you cannot mount the pen cap.

2) Unmounting the pen cap : Hold and draw the pen cap from the smart pen.

## ●●●● Troubleshooting

◆ **Power is not turned on.**

Check if the battery is discharged. If discharged, use the USB charging cable to charge the pen.

◆ **The pen is not charged even if it is connected to the power.**

Check if the USB charging cable is properly connected. You cannot use a general USB cable.
Check if the power is supplied to the PC's USB port.
(If the PC is in the sleep mode or turned off, no power is supplied.)

◆ **The pen is turned on but not connected to the PC and the LED keeps flickering.**

Check if the Bluetooth dongle is connected to the PC.
Check if the pen control program, PenlabMgr, is running. (Refer to how to use on the page 14.)

◆ **The pen's operating status LEDs are all turned on (in purple) and the pen does not work.**

If the pen is not connected to the PC for a long time after it is turned on, the pen switches to the power saving mode.
Turn off and on the pen to put the pen into the connection standby mode and try to connect the pen to the PC again.

◆ **The pen does not operate even if the status LED is turned on properly.**

Check if you are using the pen on the dedicated paper with printed patterns or on the smart sheet.
Check if you are tilting the pen within the effective operation angle. Make yourself familiar with the pen usage method.

◆ **The pen keeps vibrating.**

Check if you are using the pen on the dedicated paper with printed patterns.
If the pen has a recognition error continuously, the vibration motor operates.
Make yourself familiar with the pen usage method.

◆ **LED starts to flicker suddenly when I use the pen.**

This symptom occurs when the Bluetooth communication is disconnected.
Turn off and on the pen to try to establish the Bluetooth connection (or automatic connection to the PC).

## ●●●● **Using the Product Safely**

◆ **Keep the product away from children or pets.**

If a child sucks or bites the product or swallows part of it, it may cause suffocation, explosion, electric shock, or exposure to electromagnetic wave. Make yourself familiar with the usage method.

◆ **Keep the product clean.**

If the charging cable or battery charging port is contaminated with foreign substances, the battery may not be charged. Wipe the product with soft cloth. Do not use chemicals (alcohol, benzene, or thinner) as it may cause fire.

◆ **Use and store the product at room temperature.**

If you store the product in a hot place (inside the car during the summer, in a closed area with direct sunlight, or near a fire source), the product may deform, catch fire or explode. If you store it in a too hot or too cold area, the product may malfunction or its lifespan may be reduced. Use or keep the product always at room temperature.

◆ **Be sure to use a genuine product.**

Use authorized products provided by the manufacturer. If you use an unauthorized charger, etc., the product's lifespan or performance may be reduced, and we cannot guarantee the safety of the user.

◆ **Avoid moisture and humidity.**

If the product or charging cable is wet or used in a humid environment, it may cause electric shock or failure due to damage of its parts or circuits. Also, a failure due to discoloration of the product is not covered by the warranty.

◆ **Do not use a heat source to dry the product even if it is wet.**

If you use a microwave, heating stove, hair dryer or other heat source to dry the wet product, a failure, deformation or explosion of the product may occur and we cannot guarantee the safety of the user. If the product is wet, do not turn on the product, and contact your service center.

◆ **Do not use the product where its use is prohibited, such as in an airplane or hospital.**

Airplanes and hospitals use high-frequency equipment, and, if you use the product in these places, an accident may occur due to interference. Be sure to follow the instructions of the relevant organizations (the same applies to places with inflammable substances or with the possibility of explosion).

◆ **Do not place the pen and the charging cable near or inside heat sources (such as a heater or microwave).**

It may cause product deformation, explosion or fire.

◆ **Do not modify, disassemble, or repair the product arbitrarily.**

Applying impact to the product or dropping it may case a failure or explosion. If you disassemble or modify the product arbitrarily, the warranty will no longer apply.

◆ **Do not use the product near a microwave or WLAN.**

As the product uses the same bandwidth as them, it may malfunction or generate noise.

## ●●●● **Customer Service**

◆ To use the product, you need to connect it to your PC or smartphone using the Bluetooth wireless communication.

◆ We provide customer service regarding product damage or malfunction that occurs while the product is connected through the Bluetooth wireless communication. But we cannot provide customer service regarding Bluetooth connection errors on any device, including your PC, to which the pen is connected.

> **Product inquiry and customer service: 82-2-2026-3914**

- Please contact us through the phone before sending the product to us.
- When you send the product to us, put it in a cushioned package so that it is not affected by impact.
- Please send your name, contact information, address, and symptoms with the product.
- If the warranty has not expired, the delivery cost will be borne by us.
- Even if the warranty has not expired, any failure caused by improper use of the product is not covered by the warranty and you will be charged a certain fee.

> **Our address:**
>
> Room 1309, C-dong, Woolim Lion's Valley, 371-28, Gasan-dong, Geumcheon-gu, Seoul, Republic of Korea
> Customer Service, ILS Communications Inc.

# Product Warranty

**This product went thorough strict quality management and inspection.
Please fill in the product warranty and keep it in a safe place.**

**Free Service**

1. If the product is found defective or has a failure under general usage conditions within the warranty period, you can have the product repaired or replaced.
2. If the product is used for sales purpose, the warranty period is shortened to half the original period.
3. You can receive the warranty service if a product failure occurs under normal usage conditions within one year of purchase (warranty period).
4 . The warranty period for the built-in battery is 6 months.

**Paid Service**

1. The product is used under abnormal usage conditions or beyond its specifications.
2. The failure is caused by the user's faults, accidents, repairs, or tests that do not consider product characteristics.
3 . The failure is caused by a natural disaster.
4. The lifespan of a consumable part has expired.

| | | |
|---|---|---|
| Product Name | | Smart sheet and smart pen |
| Model | Smart Board | PWS-92W / PWS-150W |
| | Smart Pen | SmartPen Blue (PB-100) |
| Warranty Period | | One year |
| Date of Purchase | | |
| Place of Purchase | | |
| Customer Service and Technical Support | | 02) 2026 – 3914  http://www.penlab.co.kr |
| Customer | Address | |
| | Name | |
| | Contact | |

**ILS Communications Inc.**
Room 1309, C-dong, Woolim Lion's Valley, 371-28, Gasan-dong, Geumcheon-gu, Seoul, Republic of Korea