Infrared Interactive Whiteboard

User Manual

Information in this manual is subject to change without notice.

Content

Important Information

- Do not expose your interactive whiteboard to rain or moisture to reduce the risk of fire or electric shock.
- Keep the interactive whiteboard away from open flames, electrical contacts and direct sunlight.
- Do not stare (or allow children to stare) directly into your projector's beam of light for a long time. Do not touch (or allow children to touch) your projector because it could be hot even after only a few minutes of operation.
- Two people are required to safely mount your interactive whiteboard on a wall or floor stand because it might be too heavy for one person to safely maneuver alone. After the interactive whiteboard is installed, make sure that it is fixed securely.
- Do not scratch the surface or the frame of the whiteboard with sharp or hard objects.
- Make sure that the whiteboard is well connected to the computer. Use the extension cable included in the box to match up with the whiteboard. Pay attention to the connection cables and be careful not to trip over it.
- Use whiteboard pens or QPen (optional) provided by QOMO for the whiteboard.
- Please refer to software User Manual for introduction. No relevant description in this manual.

System Requirements

Lowest Hardware Requirement:

CPU: 1.0GHz×86

Memory: 256M or above

Display card: support 256 colors

Hard disk: 1G

Support resolutions: 800×600, 1024×768, 1280×1024

USB1.1 port

Recommended:

CPU: 2.0GHz×86

Memory: 512M or above

Display card: support 256 colors

Hard disk: 2G

Support resolutions: 1024×768, 1280×1024

USB2.0 port

Operation System: Microsoft Windows 7/8.1/10 (32bit or 64bit)

Introduction

QOMO's Interactive Whiteboard uses infrared technology. Working seamlessly with a projector and computer, the QOMO Interactive Whiteboard provides more convenient, interactive and effective presentations. Perfect for school auditoriums, conference rooms, trade shows, symposiums and lecture halls. Users can write on the screen using the included pens, wand or the user's finger.

- **Writing:** Write, draw and perform mouse functions with your finger. The Whiteboard displays your penmanship instantaneously.
- **Annotating:** The user can operate and annotate over any computer applications, or save notes directly into Flow!Works Pro Software, including PowerPoint, Word, Excel, MEPG JPEG, AVI and etc.
- **Touch System:** QOMO Interactive Whiteboard is sensitive to touch speed and can be used as a high-resolution interactive white board.
- **Touch Recognition:** Can recognize touch of a single-finger, certain gesture, right-click, left-click and double click.
- **Hot Keys:** Hot keys located on the side(s) of the boards providing quick access to frequently used keys.
- **Optional QPen:** The button functions on the QPen can be customized by interacting with QOMO whiteboard software.
- **Intelligent Pen Tray:** It supports intelligent pen tray with four color-coded pens (red, blue, green and black).
- **Driver Free Mode:** This product design is in accordance with HID category standard and supports driver free.
- **Energy Saving:** Power consumption is less than 1 W and it works without external power supply.

How to install hardware

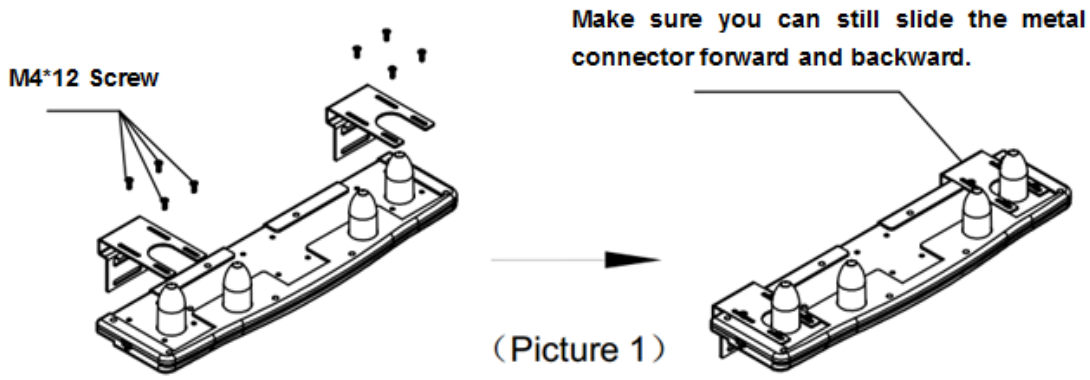
■ How to install QWB300 series hardware

◆ Installing Pen Tray of QPT100

Note: Please install the pen tray on the whiteboard before mounting the whiteboard onto the wall or to a stand.

Step 1: Install metal connector

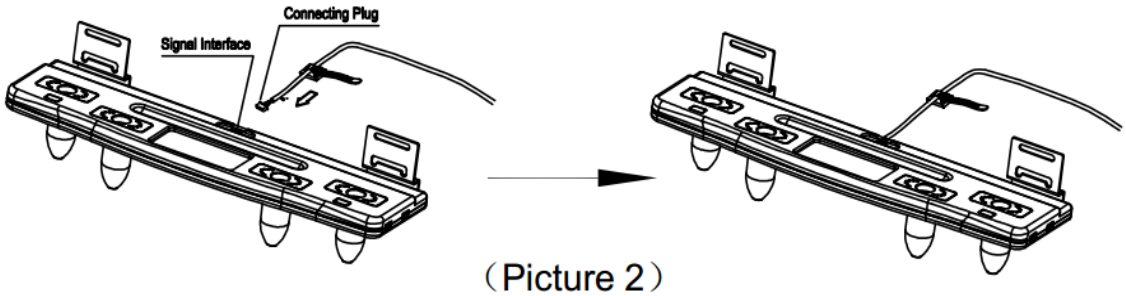
Mount a metal connector on the left-most and right-most concave plane at the back of pen tray, respectively. Insert and loosely fasten the screws (so that you can still slide the metal connector forward and backward), as shown in Picture 1.



（Picture 1）

Step 2: Connect the cable

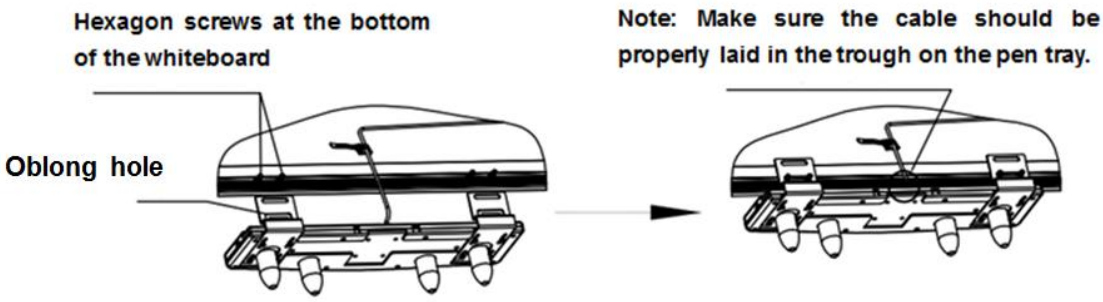
Insert the connecting plug at the back of whiteboard to the signal interface on the pen tray, as shown in Figure 2. Note: Don’t pull the cable violently.



（Picture 2）

Step 3: Attach the pen tray to the whiteboard

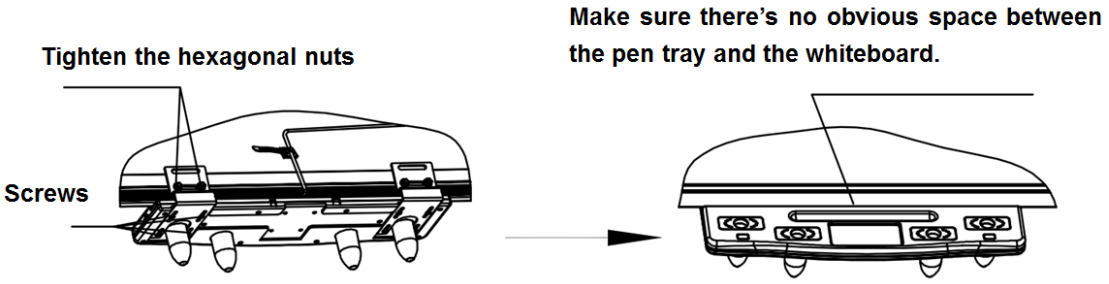
Adjust the four hexagon screws at the bottom of the whiteboard to the appropriate position. Then align the screws with the two oblong holes on the metal connector and attach the pen tray on the whiteboard frame，as shown in Picture 3. Note: Align two screws with one hole, respectively.



（Picture 3）

Step 4: Adjust

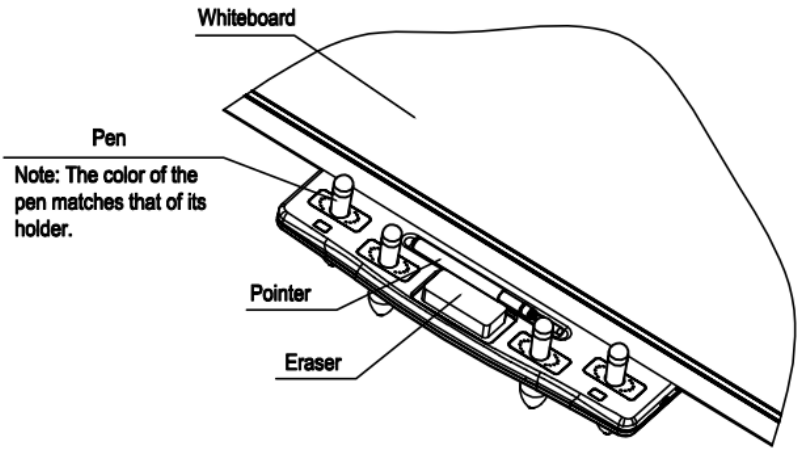
Push the pen tray upward to make its rung seamlessly attached to the bottom of the whiteboard frame and then firmly fasten the screws installed loosely in Step 1. Tighten the included 4 hexagonal nuts onto the bolts to finally secure the pen tray, as shown in Picture 4.



（Picture 4）

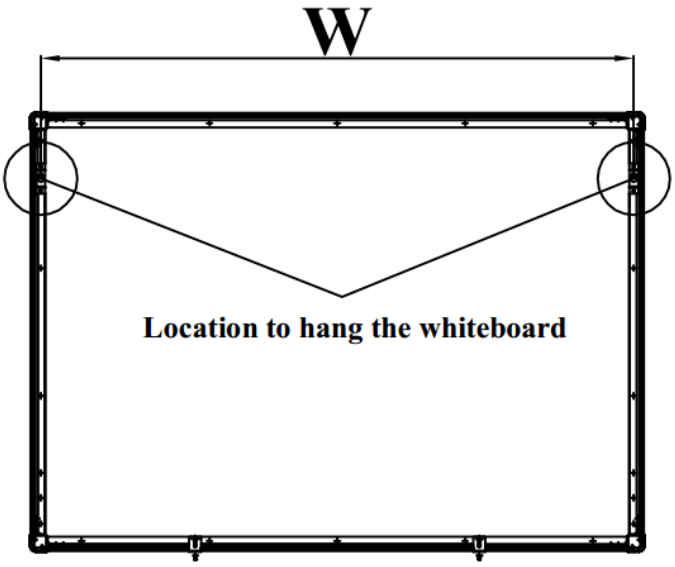
Step 5: Add accessories

Add the accessories (pointer, eraser and four color-coded pens) into their designated places on the pen tray finally, as shown in Picture 5.



（Picture 5）

◆ **Wall-mounting interactive whiteboard**



Backside of whiteboard

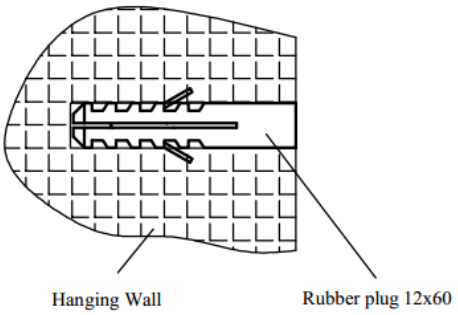
Accessory

			
Rubber plug 12x60 2pcs	Rubber plug 6x30 2pcs	Screw M8x60 2pcs	Screw M4x30 2pcs
			
Bracket 42*42*35 2pcs	Screw M4x6 2pcs	Gasket Ø12x1 4pcs	

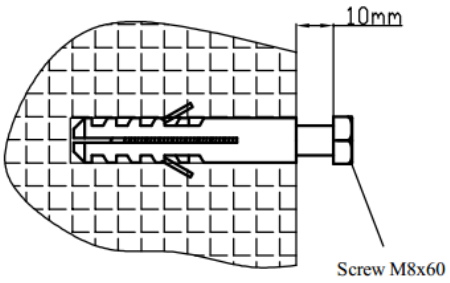
1) Choose an appropriate mounting location and height. Drill two holes on the wall and keep a

width indicated in the size chart between them (Hole size: ø=12mm, depth=60mm); Two holes must be on the same level.

2) Place 12x60mm rubber plugs into the two holes respectively, as shown in picture 1; Tighten M8x60 screws into the rubber plugs. Note that you should not fasten the screws completely into the plugs. Screw heads should be about 10 mm above the wall, as shown in picture 2.

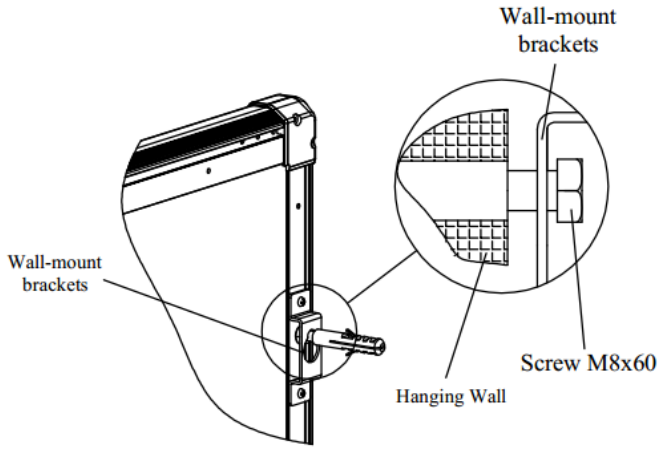


（Picture 1）



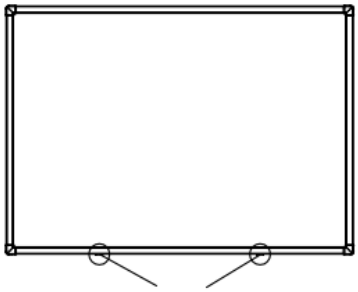
（Picture 2）

3) Attach the whiteboard on M8x60 screw heads through its wall-mount bracket holes as shown in picture 3. Make sure wall-mount bracket holes should be fixed between screw heads and wall.



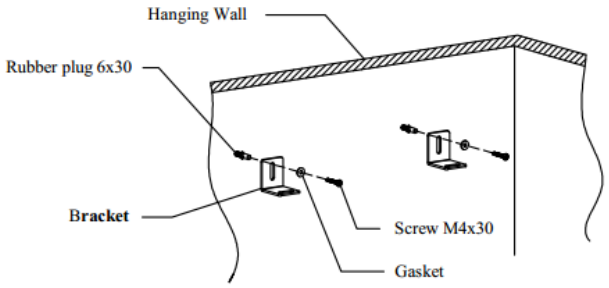
（Picture 3）

4) According to the locations of lockholes at the bottom of whiteboard, attach brackets on the wall using M4x30 screws and 6x30 rubber plugs, as shown in picture 4 &5.



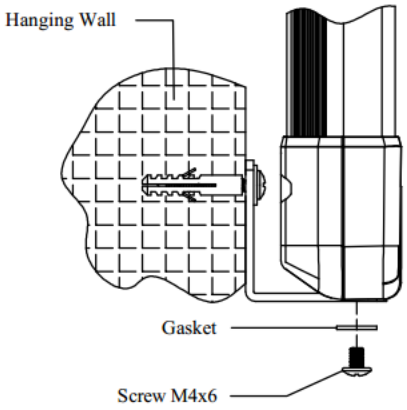
Lock holes

（Picture 4）



（Picture 5）

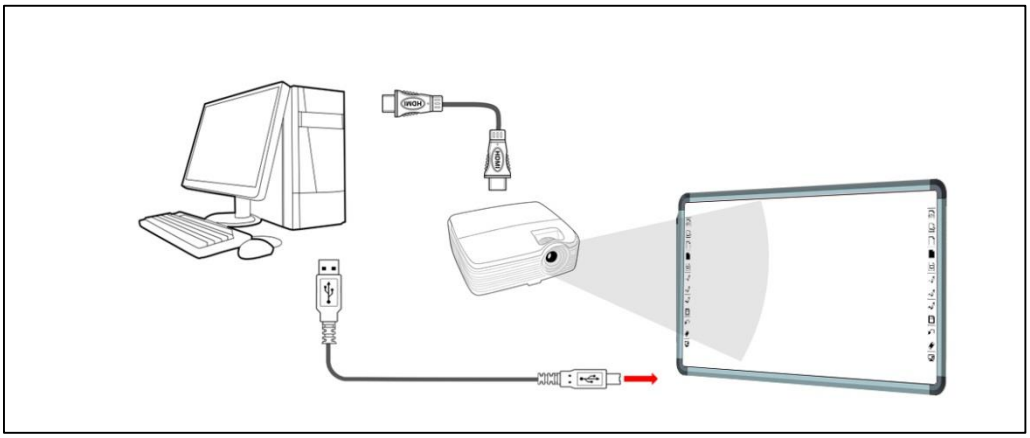
5) Align lockholes with bracket horizontal holes and tighten them with M4x 6 screws as shown in picture 6.



（Picture 6）

■ How to build an interactive system

Using your interactive whiteboard requires a computer and a projector. Interactive whiteboards connect to a computer and a projector to display the desktop of the computer on the whiteboard. The displayed image can then be controlled by a whiteboard pen or finger by touching objects on the whiteboard.



1) Make sure the whiteboard is firmly fixed before building the interactive system.
2) Adjust the positions of the projector and whiteboard to make sure images are projected to writing area of the whiteboard in full screen.
3) Connect the included USB cable in the accessory box to the whiteboard USB receptacle. The USB cable in the accessory box is designed for the whiteboard. Normal USB cable might not be compatible to the whiteboard.
4) Connect the other end of USB cable to a USB receptacle on your computer.
5) Connect the computer and projector (You can refer to projector User Manual for more details).

Calibration

■ Whiteboard Calibration

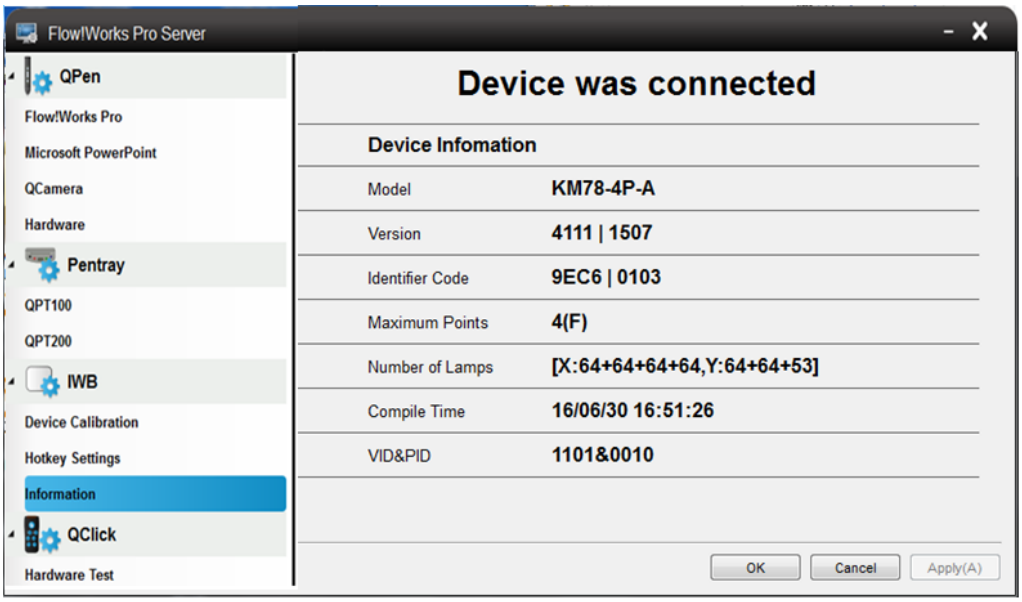
1. Whiteboard driver is included in Flow!Works Pro software server. Install Flow!Works Pro software and its server will automatically installed in the meantime.

   The server icon  appears at the lower right of taskbar after installation (as figure 1).

   Note that uninstall the original Flow!Works Pro software and infrared whiteboard driver before you install this Flow!Works Pro version with whiteboard driver included.

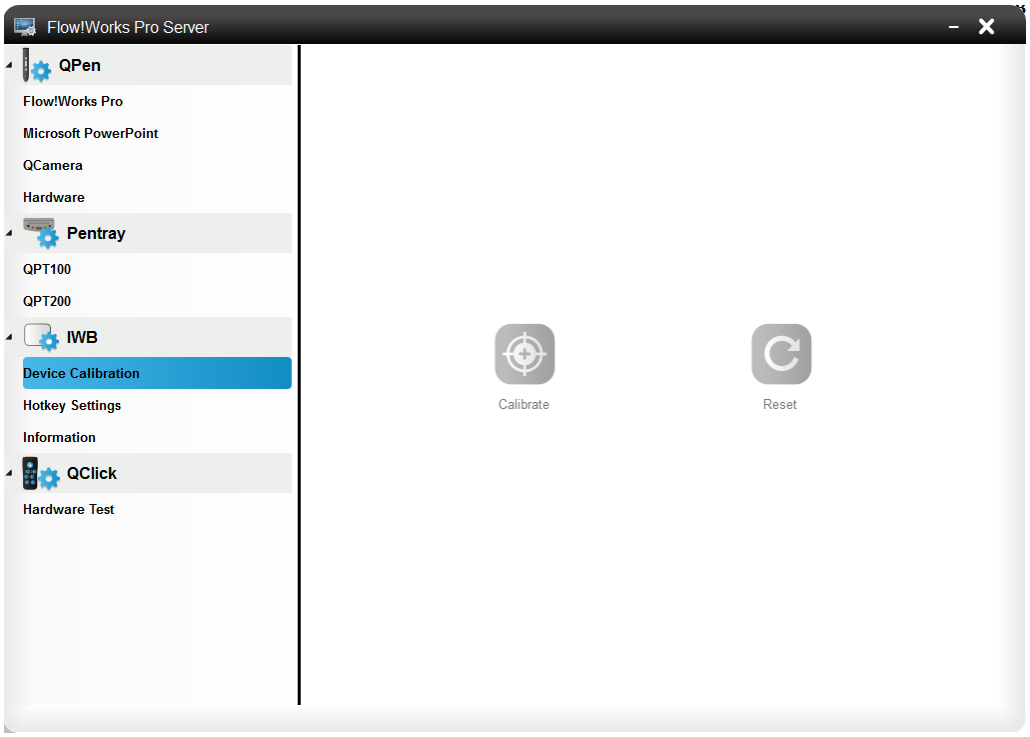
(Figure 1)

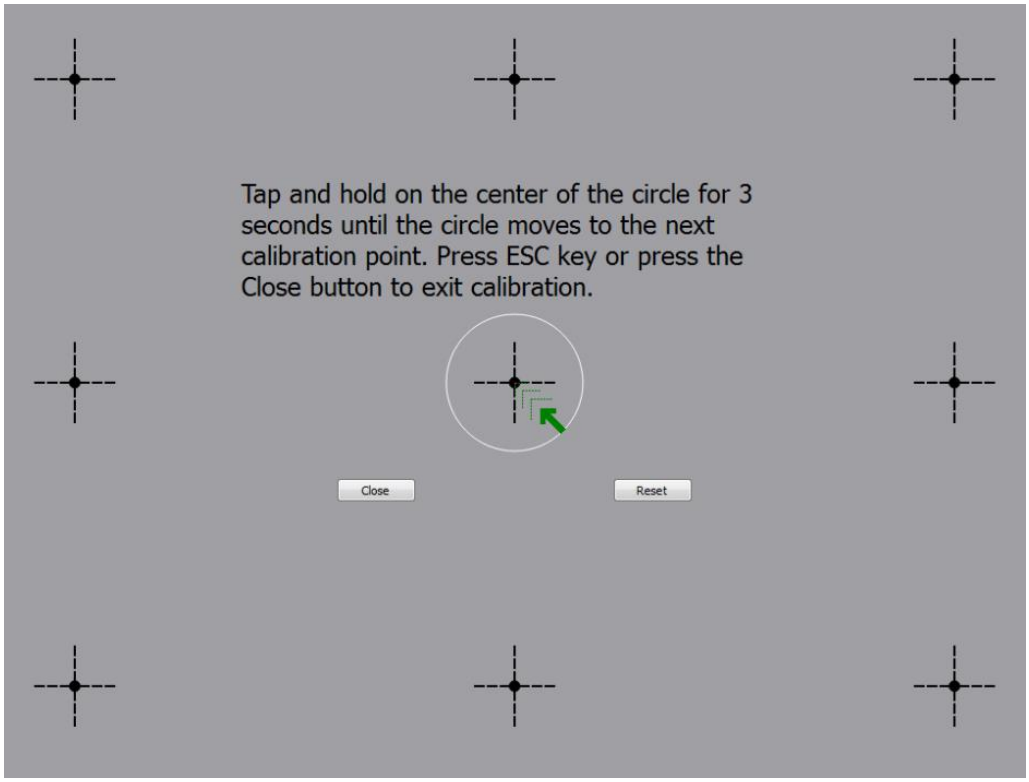
2. Connect whiteboard USB cable to the computer and “IWB device was connected” will appear at the lower right of taskbar when it is successfully connected. And then open the server, select IWB>Information and device information will appear on the interface (as Figure 2).



(Figure 2)

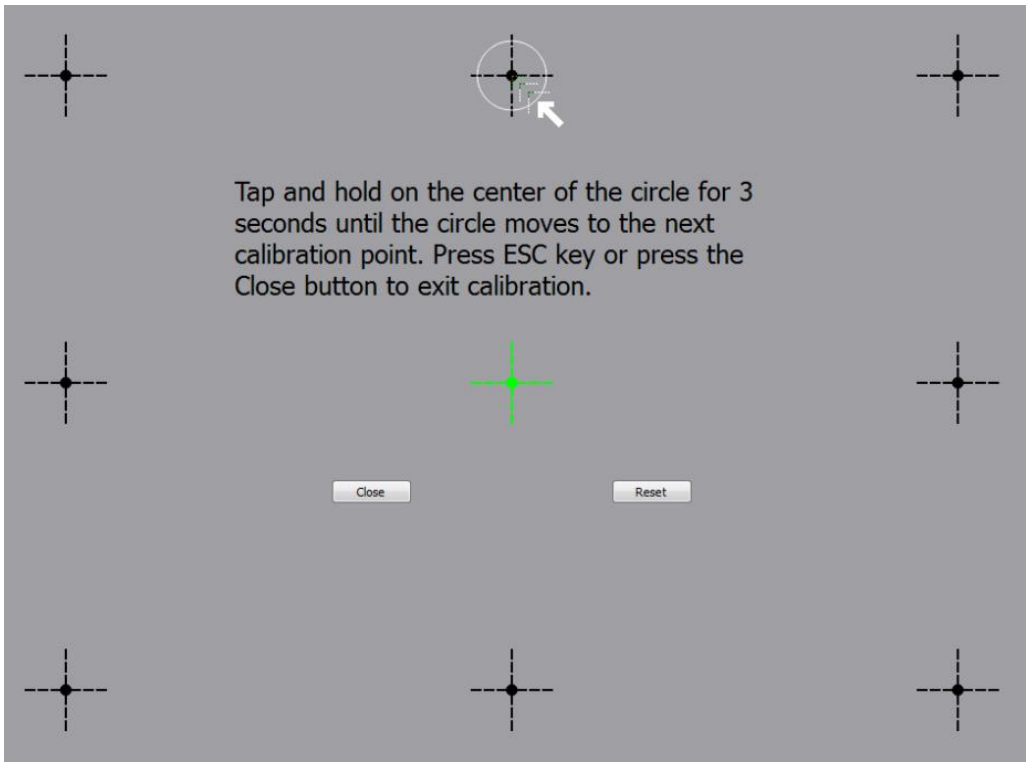
3. Select IWB Device Calibration and click “Calibrate” button and a pop-up calibration interface appears (as figure 3); Tap and hold the center of the circle for 3 seconds until the circle moves to the next calibration point. Complete the calibration process as instructed.





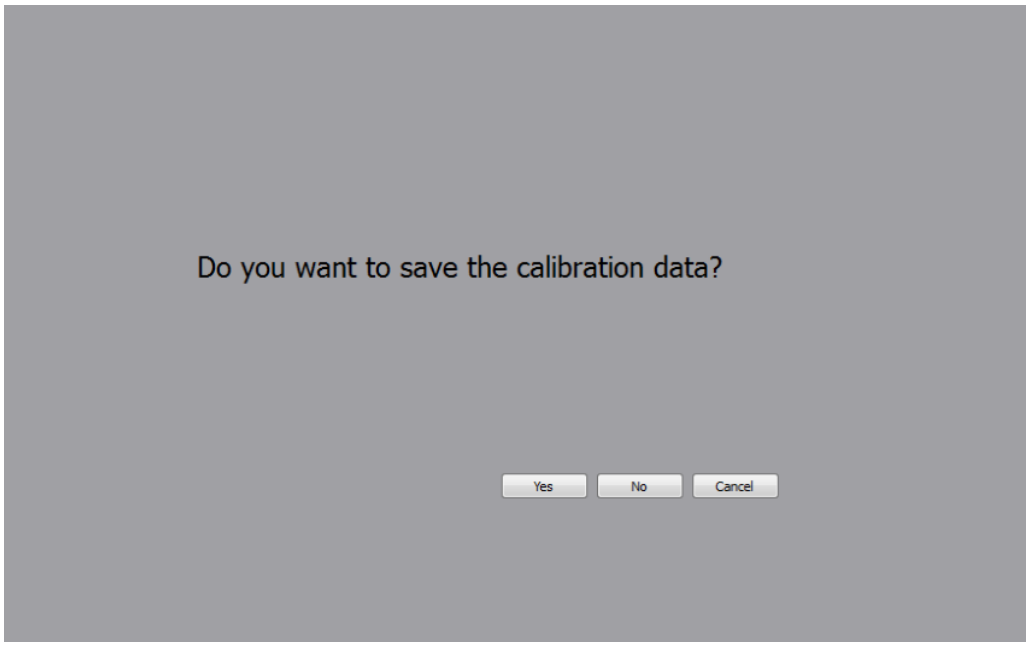
(Figure 3)

Note: Every single calibration point turns green when finished calibration (as figure 4).



(Figure 4)

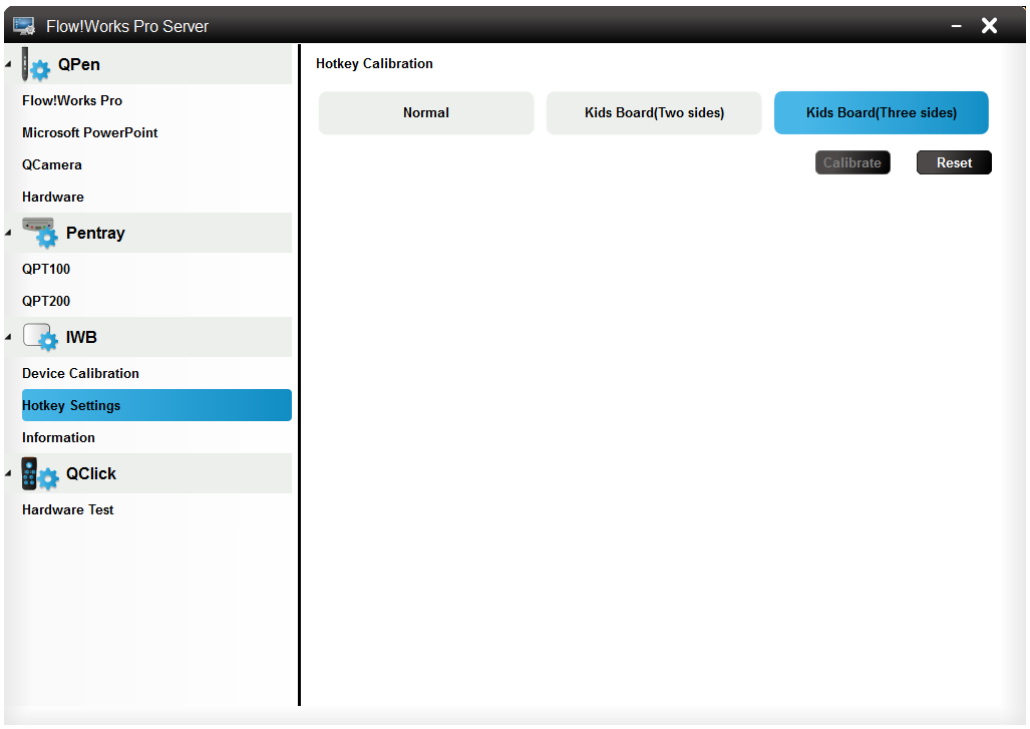
4. Confirmation interface pops up after calibration. Click “Yes” after it completes (as figure 5).



(Figure 5)

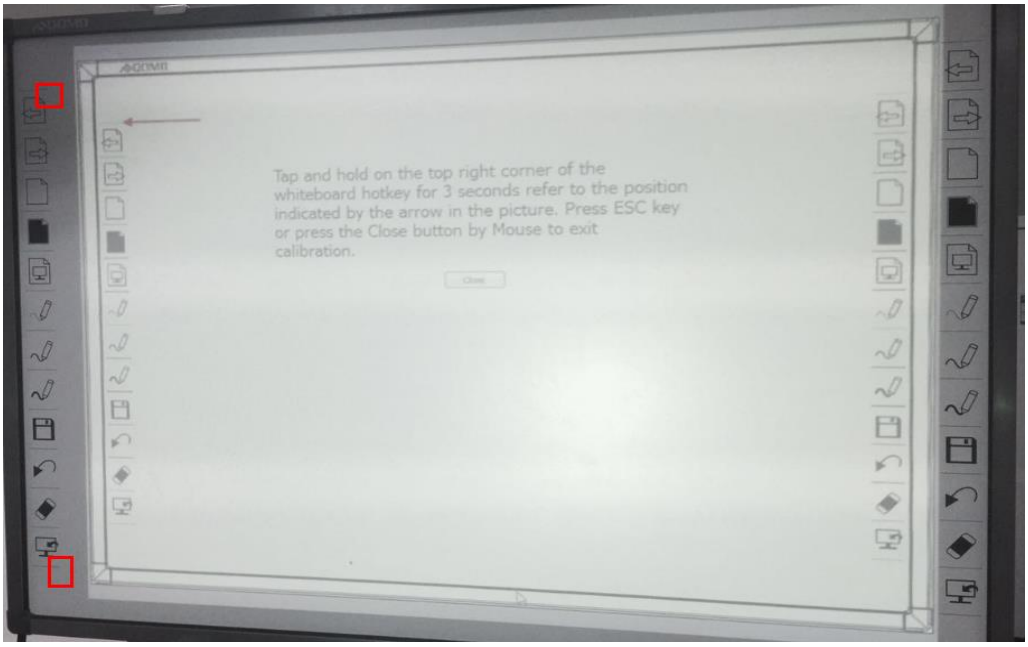
■ Hot Keys Calibration

1. Select a version before you start calibrating hotkeys. Select “Kids Board（Two sides）” or “Kids Board (Three sides)” according to kidsboard with two-side hotkeys or three-side hotkeys if your whiteboard is kidzboard. In other cases, select “Normal” (as figure 6).

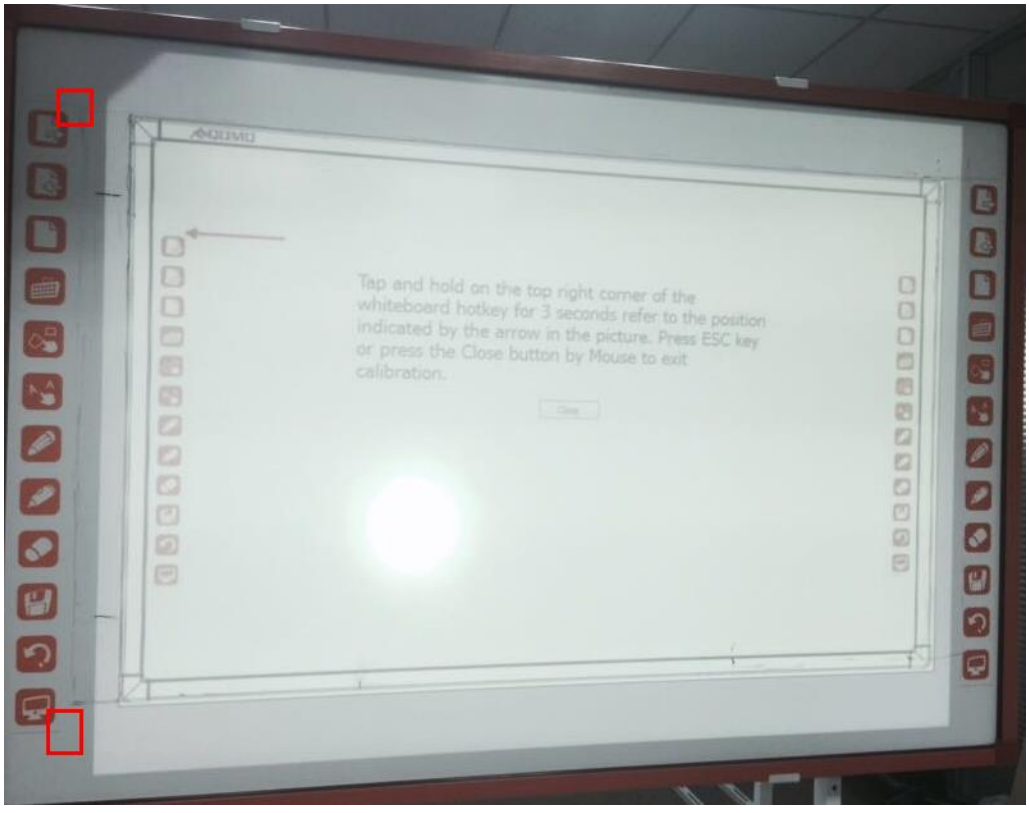


(Figure 6)

2. After selection, click “Calibrate” button to enter the hotkey calibration interface. Tap and hold on the corresponding position for 3 seconds according to the tip on the whiteboard (as figure 7&8).



(Figure 7)

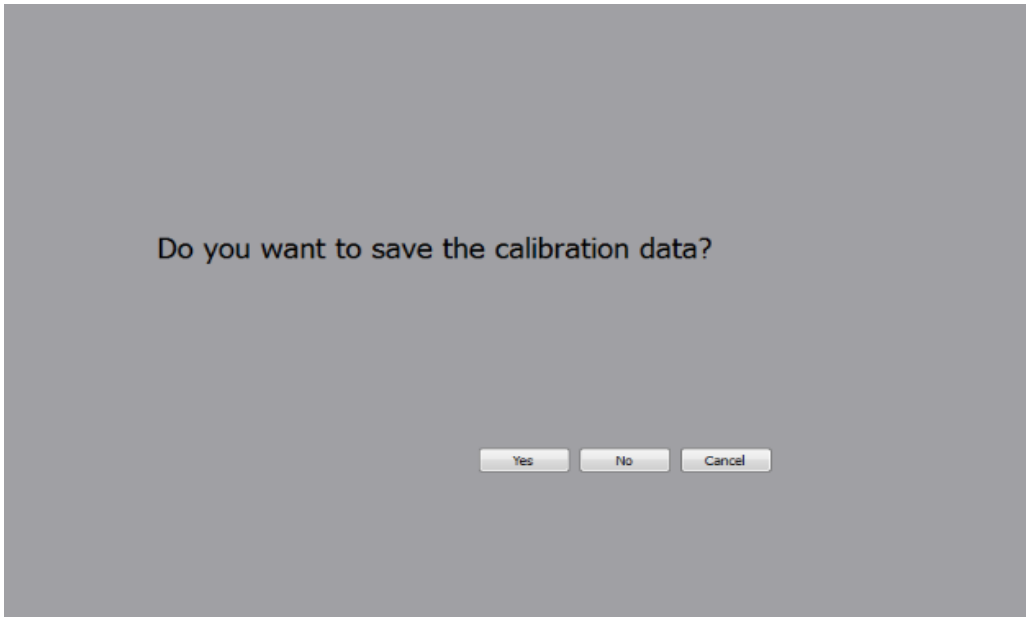


(Figure 8)

Note that the projected picture is only for reference. Please calibrate the real hotkey. The way for three-side kidsboard calibration is similar to that of two-side kidsboard.

3. Confirmation interface pops up after calibration. Click “Yes” after it completes (as

figure 9).



(Figure 9)

Hints & Tips

• To ensure the writing accuracy, use the pen provided rather than a finger to perform calibration.

• Calibration errors may cause touch functions failure. In that case, please perform calibration again.

• Press “Close” on the whiteboard to cancel the current calibration process.

• The calibration interface varies with different software versions, but calibration is in a similar way.

• Hotkey calibration is provided for your whiteboard with hotkeys.(For QWB300-Z,it is no need for hotkey calibration)

How to use whiteboard

Whiteboard can work normally after calibration, even without opening Flow!Works Pro. Some common operations can be implemented rapidly through whiteboard.

Click

Use pen or finger to control the cursor position on the whiteboard to achieve mouse left key click function. It is generally used to select or point to objects.

Double-click

Double click with pen or finger on the whiteboard to achieve mouse double-click function.

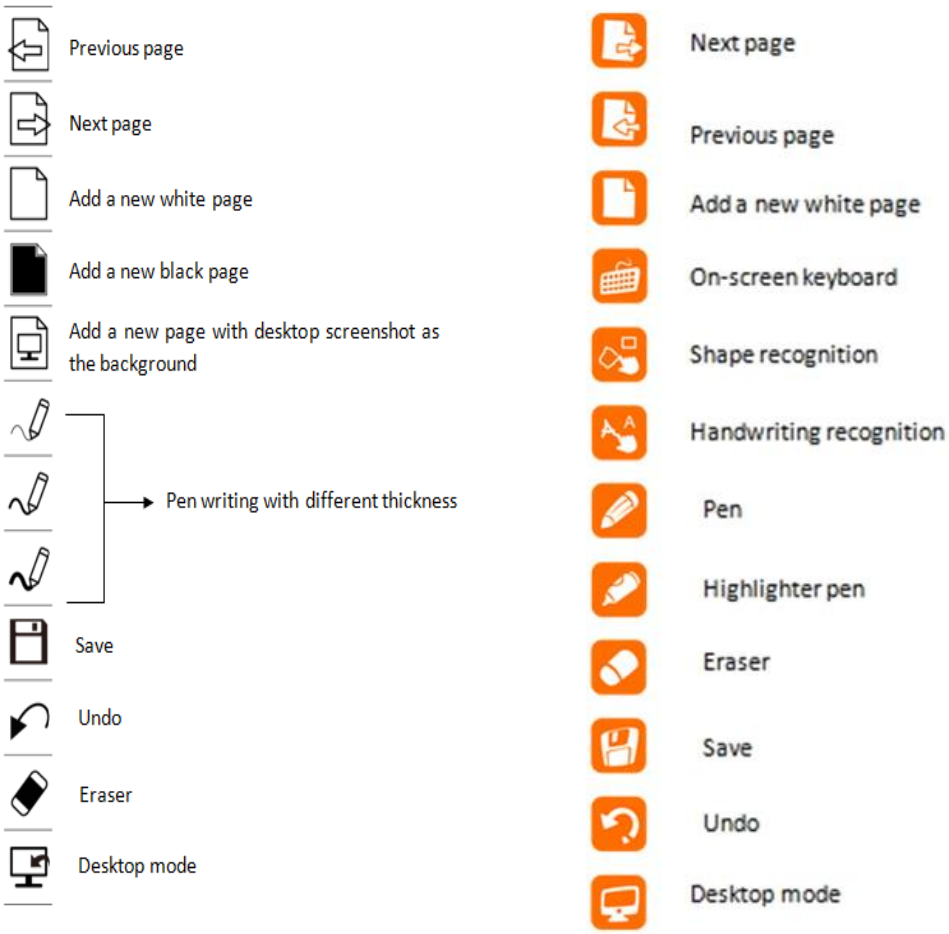
Double click the Flow!Works Pro icon on the desk to start the software.

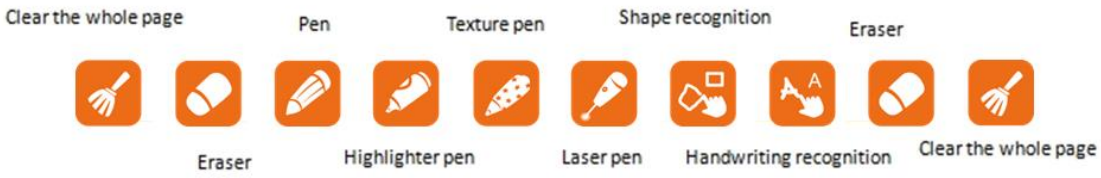
Right Click

Hold finger or pen on the whiteboard for about 2S to achieve mouse right click function.

Hotkey functions

When Flow!Works Pro software does not start, click any one of the hotkeys to start the Flow ! Works Pro software. You can realize the corresponding functions by clicking the hotkeys when Flow!Works Pro software is running. The following are the lists of hotkeys.

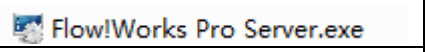




Refer to the above hot key explanations according to the actual models you purchased.

Trouble Shooting

Problem	Symptoms	Possible Cause	Solution
Whiteboard fails to work	Flow!Works Pro Server is not running.	Flow!Works Pro Server was not started.	Start the Flow!Works Por.
		Flow!Works Pro Server was not installed.	Install the Server.
	IWB device information does not display on the server interface.	Whiteboard was not connected to the computer.	Use cable provided to connect the computer.
		Whiteboard fails to self-inspection.	Check whether there are objects pressing against the whiteboard. If there are, please clear them away.
Calibration fails.	Parts of calibration cross points are invisible on the whiteboard.	The projected image is too large or doesn't completely fill your interactive whiteboard's screen.	Adjust the projector's position.
	Tap calibration point but the mouse cursor could not move to the point.	Switch between small-scale and large-scale projection without calibration resetting.	Reset calibration and recalibrate after switch.
	Mouse cursor can't move to the next calibration point any more.		1. Reset calibration and recalibrate. 2. Check if there are objects on the infrared frame. If there are, please clear them away.
Unable to	Mouse cursor is	Software is not in writing	Switch to the writing mode and the

write	moving while there's no handwriting.	mode.	mouse cursor icon shows as a pen.
	Mouse cursor icon shows as a pen but fails to write even in writing mode.	The pen stroke color are the same as or similar to the background color.	Change pen color or background.
Writing accuracy deviation	Large deviation on some parts of the whiteboard.	Inaccurate calibration.	Recalibrate
		Projective distortion.	Adjust projector.
Writing is delayed.		Conflict with antivirus software.	Close the antivirus software.
		Too many programs are running at the same time.	Shut down programs not used for the moment.
Whiteboard touch is available while hotkeys and pen tray do not work.		Flow!Works Pro Server is not running.	Restart Flow!Works Pro to run its Server. If Flow!Works Pro Server does not appear even after restart, please right click Flow!Works Pro icon, select "Open file location" , find and install the Server. 
		Hardware configuration is too low.	Upgrade hardware configuration.

Specifications

	Model No.	QWB383-Z	QWB393-Z
Mechanical feature	Outer frame	Aluminum alloy (silver oxide)	Aluminum alloy (silver oxide)
	Surface	Nano coated extruded core	Nano coated extruded core
	External dimension	1714.8mm x 1216.5mm mm x 26mm(82.8")	2018.8mm x 1216.5mm mm x 26mm(92.8")
	Effective touch area(include shortcuts)	1671.8mm x 1173.5mm (80.5')	1975.8mm x 1173.5mm (90.5')
	Shortcuts	Bilateral, 12 on each side	Bilateral, 12 on each side
	Projection area （don't include	1548.56mm x 1173.5mm(78.2")	1852.56mm x 1173.5mm(86.3")

	shortcuts	Bilateral, 12 on each side	Bilateral, 12 on each side
	Effective projection ratio	04:03	16:10
	Packing size	1930mm x 1340mm x 70mm	2110mm x 1470mm x 70mm
	Weight	GW:20.5 KG(NW: 14.5KG)	GW:26 KG(NW: 19.5KG)
Electric parameter	Voltage range	DC 5.0V±5%	DC 5.0V±5%
	Power consumption	≤(300mA DC 5V)	≤(300mA DC 5V)
	Supply mode	USB power supply	USB power supply
	ESD	EN61000-4-2，4，contact discharge4KV，air discharge8KV	EN61000-4-2，4，contact discharge4KV，air discharge8KV
	OS support	Windows, Mac OS	Windows, Mac OS
	Communication mode	USB2.0 FS	USB2.0 FS
Touch feature	Induction object	Finger pen and opaque object	Finger pen and opaque object
	Location technology	Non-contact infrared sensor positioning technology	Non-contact infrared sensor positioning technology
	Resolution	32767(W) × 32767(D)	32767(W) × 32767(D)
	Response time	Multi mode：Click：<9ms	Multi mode：Click：<9ms
		Single mode：Click：<5ms	Single mode：Click：<5ms
	Speed of cursor	Max 300dots/second	Max 300dots/second
	Size of effective touch object	≥ Ø6mm	≥ Ø6mm
	Function of cursor	Completely replace the mouse，Single click，double click and right click	Completely replace the mouse，Single click，double click and right click
	Positional accuracy	90% regional position error <2mm	90% regional position error <2mm
	Multi touch	Standard 10 points	Standard 10 points
	Life time of touch	Infinite theoretical value	Infinite theoretical value
Environmental parameter	Temperature	Operation Temperature：-20 °C ~ 60 °C,Storage Temperature：-10°C ~ 40°C	Operation Temperature：-20 °C ~ 60 °C,Storage Temperature：-10°C ~ 40°C
	Humidity	Operating humidity：20% ~90% Storage humidity：30%~70%	Operating humidity：20% ~90% Storage humidity：30%~70%

	Relative humidity	40 °C，90% RH	40 °C，90% RH
	External light resistance test	Filament lamp (220V,100W) , Vertical dimension Above 350mm	Filament lamp (220V,100W) , Vertical dimension Above 350mm
		The sunlight radiation intensity of illumination 70000Lux	The sunlight radiation intensity of illumination 70000Lux
	Working place	Under strong light、Indoor、Outdoor	Under strong light、Indoor、Outdoor