

***DUKANE***

**ITP84**  
**84" Interactive Touch Panel**  
**User Guide**



## Caution Notes

---



### Warning

- This product contains high voltage; the user should not open the case. Non-professional maintenance personnel should not try to repair this product. For safety, this apparatus should be connected to an electrical outlet with a protective earth ground connection ( 3 prong plug) .



### Important Note

- Clean with a soft cloth and avoid rubbing any hard object on the surface. Do not place any object or tape on the panel screen.
- This product should be placed where it cannot be splashed by water or where it may be subject to rainfall. If the panel is accidentally exposed to water, immediately disconnect the power plug, dry the surfaces, and if necessary contact your dealer.
- If in an area with a thunderstorm, disconnect the power plug. Also if possible, disconnect the TV antenna feed if it is being used.



### General Note

- Always activate a screen saver during operation. Do not display still images with high contrast for extended periods of time, like over 2 hours. If a still image remains on the screen for a long period an after image or ghost image may be present. This is a well known phenomenon with LCD technology. In most cases the after image will disappear gradually over time after the power has been switched off.
- Also note that when using a 4:3 display format, the sides or edges of the display may have a residual image trace. Please try to avoid this mode of operation.



### Warning

- To prevent injury, the equipment must be firmly attached to the floor or the wall.
- An antenna connected to the panel must be isolated from grounding, otherwise it may cause fire hazard during electrical storms (use an antenna isolator between the antenna and the antenna interface of the product).

An antenna isolator installation diagram follows:



## DUKANE CORP

Audio Visual Products Division  
2900 Dukane Drive,  
St. Charles, Illinois 60174  
Toll-free: 888-245-1966  
Fax: 630-584-5156  
E-mail: [avsales@dukane.com](mailto:avsales@dukane.com)  
[www.dukaneav.com](http://www.dukaneav.com)

# Contents

---

<b>INFO NOTES</b> .....	<b>1</b>
<b>CAUTION NOTE</b> .....	<b>1</b>
<b>CONTENTS</b> .....	<b>3</b>
<b>INTRODUCTIONS</b> .....	<b>4</b>
INTRODUCTION.....	4
FEATURES .....	4
<b>ACCESSORIES LIST</b> .....	<b>6</b>
STANDARD ACCESSORIES LIST.....	6
OPTIONAL ACCESSORIES LIST.....	6
<b>PREPARATION</b> .....	<b>7</b>
USING THE REMOTE CONTROL.....	7
INSTALLING THE BATTERIES .....	7
POWER CONNECTION .....	7
<b>IDENTIFICATION OF CONTROLS</b> .....	<b>8</b>
MAIN UNIT (FRONT VIEW).....	8
MAIN UNIT (REAR VIEW).....	9
REMOTE CONTROL UNIT.....	10
<b>SELECT INPUT MODE</b> .....	<b>12</b>
<b>INSTALL AND OPERATE IPBOARD TOUCH SOFTWARE</b> .....	<b>13</b>
1. EXPRESS INSTALLATION OF IPBOARD TOUCH SOFTWARE.....	13
2. STEP-BY-STEP INSTALLATION OF IPBOARD TOUCH SOFTWARE .....	17
3. UNINSTALL IPBOARD TOUCH DRIVER.....	20
4. UNINSTALL IPBOARD TOUCH SOFTWARE.....	20
<b>RUN THE SOFTWARE</b> .....	<b>21</b>
1. STARTUP DRIVER OF LCD PANEL .....	21
2. STARTUP APPLICATION SOFTWARE OF LCD PANEL .....	21
3. ACTIVATE IPBOARD TOUCH SOFTWARE.....	22
4. OPTIONS OF IPBOARD TOUCH SOFTWARE .....	24
5. SCREEN RECORDER ( FORMAT IS .AVI OR .WMV ) .....	28
<b>TROUBLESHOOTING</b> .....	<b>30</b>
REMOTE CONTROL .....	30
VIDEO AND AUDIO .....	30
GENERAL PROBLEM.....	31
<b>SPECIFICATIONS</b> .....	<b>32</b>

## Introductions

---

### Introduction

Dukane large-size Interactive Touchable LCD panels with LED light source combine display with interactive touch technology.

The Touchable LCD Panel uses a high-definition LCD panel integrated with a high-speed touch system. The touch sensing bezel uses Aluminum Alloy and Kirksite to provide an attractive appearance, plus a safe and reliable design with rounded corners.

The Interactive Touch Panel can be used in teaching, conferences, advertising, display, collaboration, command, and other applications.



### Features

- **Interactive touch function**

The panel has an interactive multi-touch capability, by an edge embedded high-speed infrared touch detection system. When it is connected to a computer, it will control the computer using specific application software, this provides the interactive operation.

- **Multi-touch function**

The panel has a built-in touch system with a multi-touch function (6 points) under a Windows Operating system. It enables the objects (in programs and pictures) to be zoomed, dragged, rotated, and resized.

- **Free calibration function**

The panel supports a fast calibration function. Users can plug and play (the factory settings are for the Windows 7 multi-touch mode) without any delay for a program boot up or down loading.

- **High-quality LCD screen**

The panel features a high brightness, high contrast, accurately mapped, color optimization, motion and still image compensated processor for a perfect picture. A LED backlight provides consistent brightness.

- **Digital multimedia broadcasting function**

Simple operation is by plugging in a USB 1.1 or USB 2.0 standard memory stick. A user can browse images, play movies, listen to music, etc.

- **Multimedia function**

The panel has a VGA port, so it can be used as computer monitor. In addition it has HDMI, USB, component input, s-video, plus audio input and output ports so it can be used with a variety of external devices.

- **Remote and mouse function**

The panel can be used with an optional remote control or mouse for distant external control.

- **The touch response speed ups to 300 dots.**

The high-speed touch sensor permits perfect easy writing and fast control..

- **Three touch modes can be selected**

Using the settings there are three touch modes that can be selected: single touch mode, mouse mode, multi-touch mode.

## Accessories List

### Standard Accessories List

Description	Quantity	Purpose	Picture
Power Cord	1	Connecting to the Power Outlet	
Remote Control	1	Control the Touchable LCD panel from a Distance	
Pointer	1	Pen for the Touchable LCD	
Pen	2	Pen for the Touchable LCD	
<i>IPBOARD Touch Software CD</i>	1	Driver and application software	
<i>Touchable LCD TV User Guide</i>	1	User Guide Also available on the web site	

### Optional Accessories List

Description	Quantity	Purpose	
PC		Active operation of the touch system	
Mobile Floor Stand	1	To hold the touch panel, permits movement to other locations	
Wall Mount		Hold panel in specific location	

## Preparation

---

### Using the IR Remote Control

Use the remote control by pointing it towards the remote sensor window located at the lower left front of the panel.

#### Cautions Regarding Using of Remote Control

- Do not expose the remote control to impacts or other rough treatment. In addition, do not expose the remote control to liquids, and do not place it in an area with high humidity.
- The remote control may not work properly if the remote sensor window of the panel is in direct sunlight or strong lighting. In such a case, block the external lighting or move the panel. You can also operate the remote control closer to the remote sensor window.

### Installing the Batteries

For initial operation add 2 AAA batteries to the remote control. If the remote control fails to operate, replace the batteries.

1. Open the battery cover.
2. Insert two size AAA batteries. (Place the batteries with their terminals corresponding to the (+) and (-) indications in the battery compartment.
3. Replace the cover.

#### Precaution on battery use

Improper use of batteries can result in a leakage of chemicals and/ or explosion. Be sure of follow the instruction below.

- Place batteries with their terminals corresponding to the (+) and (-) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are non-operable. Chemicals that leak from batteries can cause a skin rash or damage the device. If chemical leakage is found, wipe it with a dry cloth.
- If the remote control is not used for an extended period of time, remove the batteries from the remote control.
- The batteries and the remote control should not be exposed to excessive heat such as sunshine, heaters, or fire.

### Power Connection

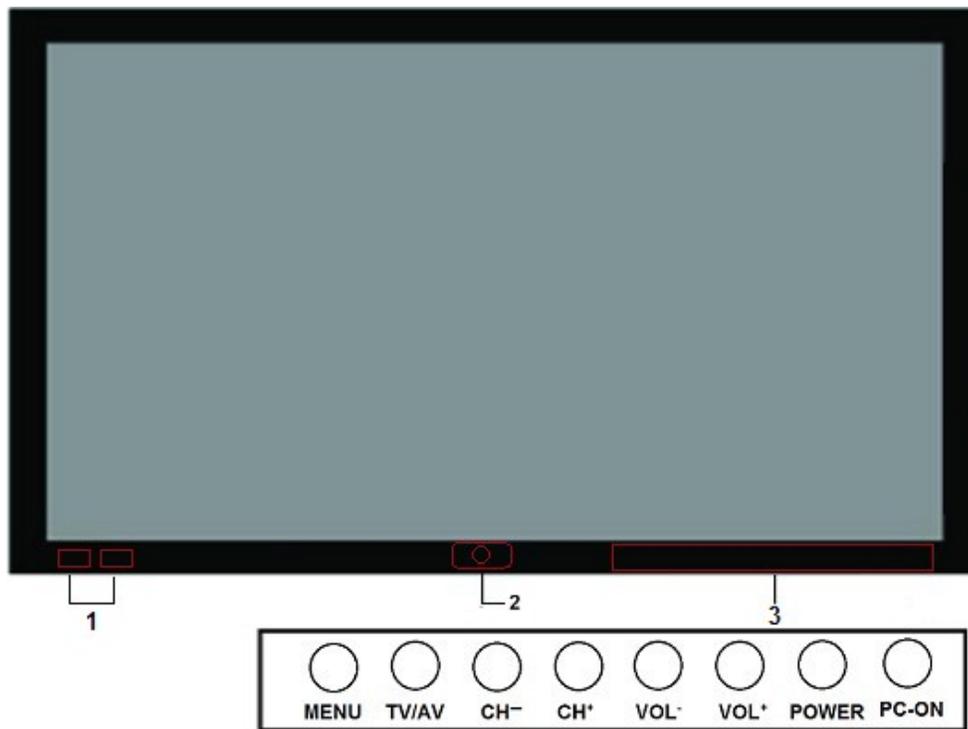
Insert the panel's AC plug into a convenient AC outlet. The panel power port is on the bottom side of the input ports unit. Normal Input voltage range: 100V ~ 240V. Frequency range: 50Hz/60Hz  $\pm$ 5%

Note: This product should be operated only from the type of power source indicated on the marking label. Always unplug the AC cord from the power outlet when not using for a long period of time.

## Identification of Controls

---

### Main Unit (Front View)



**1. USB Interface;** 2 ports

**2. Indicator;** Panel ON /OFF

### **3. Buttons**

#### **3.1 Vol +/-**

Press the Vol + or Vol - button to directly increase or decrease the sound volume level; In the OSD Menu, press these buttons to change the OSD items. **OSD** (On Screen Display)

#### **3.2 Ch +/-**

Press the Ch + or Ch - button to change the TV channel; In OSD Menu, press these buttons to change the OSD items.

#### **3.3 Menu**

Press this button to display the OSD (On Screen Display) items.

#### **3.4 AV/TV**

Press this button to switch between TV and AV modes.

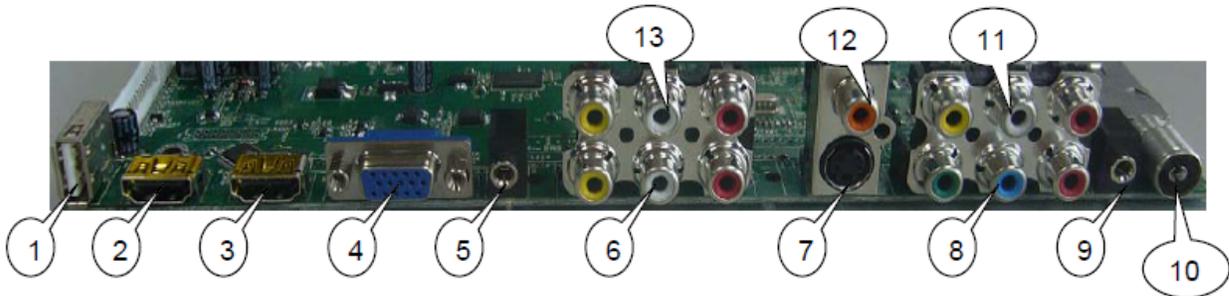
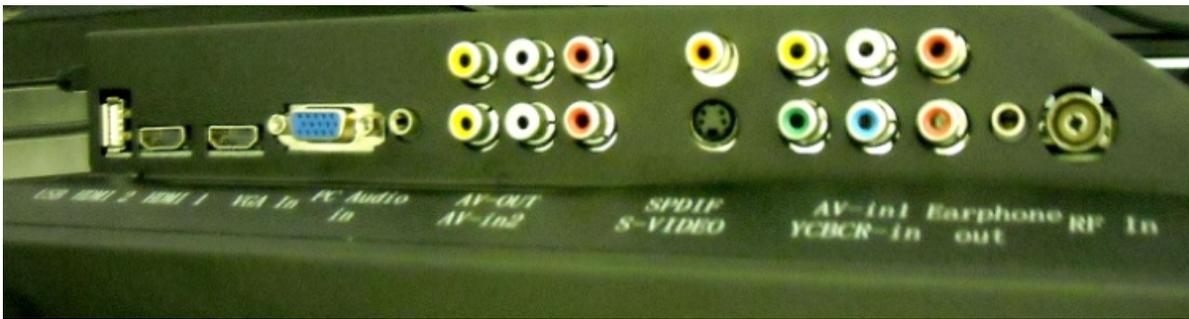
#### **3.5 PC-ON**

Press this button to turn on/off the PC.

#### **3.6 Power**

Turn on/off the panel.

## Main Unit (Rear View)



(The picture is for reference only)

Number	Terminal	Description
1	USB	Standard Type 2.0 A
2	HDMI 2	Type A HDMI video / audio
3	HDMI 1	Type A HDMI video / audio
4	VGA in Computer in	D-Sub 15 video
5	PC-Audio in	3.5mm mini stereo plug
6	AV_IN2 in RCA X 3	RCA type video / audio
7	S-Video in	Standard Y/C video
8	YBCR_ in RCA X 3	RCA type Component R/G/B
9	Headphone out	3.5mm mini Earphone Jack
10	TV_IN for coax cable	IEC type (75Ω) Side type
11	AV_IN 1 in RCA X 3	RCA type video / audio
12	SPDIF out	RCA type Digital Audio out
13	AV_OUT out RCA X 3	RCA type video / audio

Bottom of panel; USB port Type 2.0 A is on the bottom. It can be used for the touch control. Also the 115 VAC power port. Front of panel has 2 USB ports .

## Remote Control Unit

### 1. Remote Control for LCD Panel ( Note: Remote control models vary with availability )

(The picture is for reference only)

**1. POWER**  
Press to turn panel on or off.

**2. MUTE**  
Press to mute sound, press again to restore sound.

**3. 0-9 Keys**  
Press any number of 0-9 buttons to select a TV channel. It has the RECALL function, press number button in other channel, it can change to TV channel.

**4. The key has no function.**

**5. RECALL**  
Returns to the previous channel viewed. Another function is choosing picture playing mode in Multimedia mode.

**6. AUTO**  
Press to auto adjust at PC source.

**7. INPUT**  
Press this key to choose the input signal.

**8. ▲/▼/◀/▶/ENTER**  
Press the arrows to navigate through the menus or adjust an item. Press **ENTER** to confirm a selection or enter a submenu. When watching digital TV programs, press ▲ button to record a program; press ▼ button to display Recorded List; press ◀ button to time shifting; press ▶ button to play or pause.

**9. EXIT**

**10. MENU**

**11. + VOL -**

**12. CH**

**13. AV PC**

**14. 3D**

**15. TITLE**

**16. LANG**

**17. P.MODE S.MODE ZOOM ANGLE**

**18. P.MODE S.MODE ZOOM ANGLE**

**19. P.MODE S.MODE ZOOM ANGLE**

**20. P.MODE S.MODE ZOOM ANGLE**

**21. P.MODE S.MODE ZOOM ANGLE**

**22. P.MODE S.MODE ZOOM ANGLE**

**23. P.MODE S.MODE ZOOM ANGLE**

**24. DISP SLEEP**

Exits the menu screen.

**10. MENU**

Access or return to the main menu.

**11. VOL+/-**

Press to increase or decrease the volume.

**12. CH+/-**

Changes the channel up and down.

**13. AV**

Converting audio and video.

**14. PC**

Adjust at PC source

**15. SETUP**

Press the key to setup the panel.

**16. 3D**

**17. LANG**

Sets the track.

**18. TITLE**

Display the title.

**19. PMODE**

Selects the picture mode.

**20. SMODE**

Selects the sound mode.

**21. ZOOM**

Press the key to makes the pictures zoom in and out.

**22. ANGLE**

Adjust display angle.

**23. Functional button**

**24. DISP**

Press to display the source and channel's information.

**25. SLEEP**

Sets the sleep timer.

## Select Panel Input Mode

---

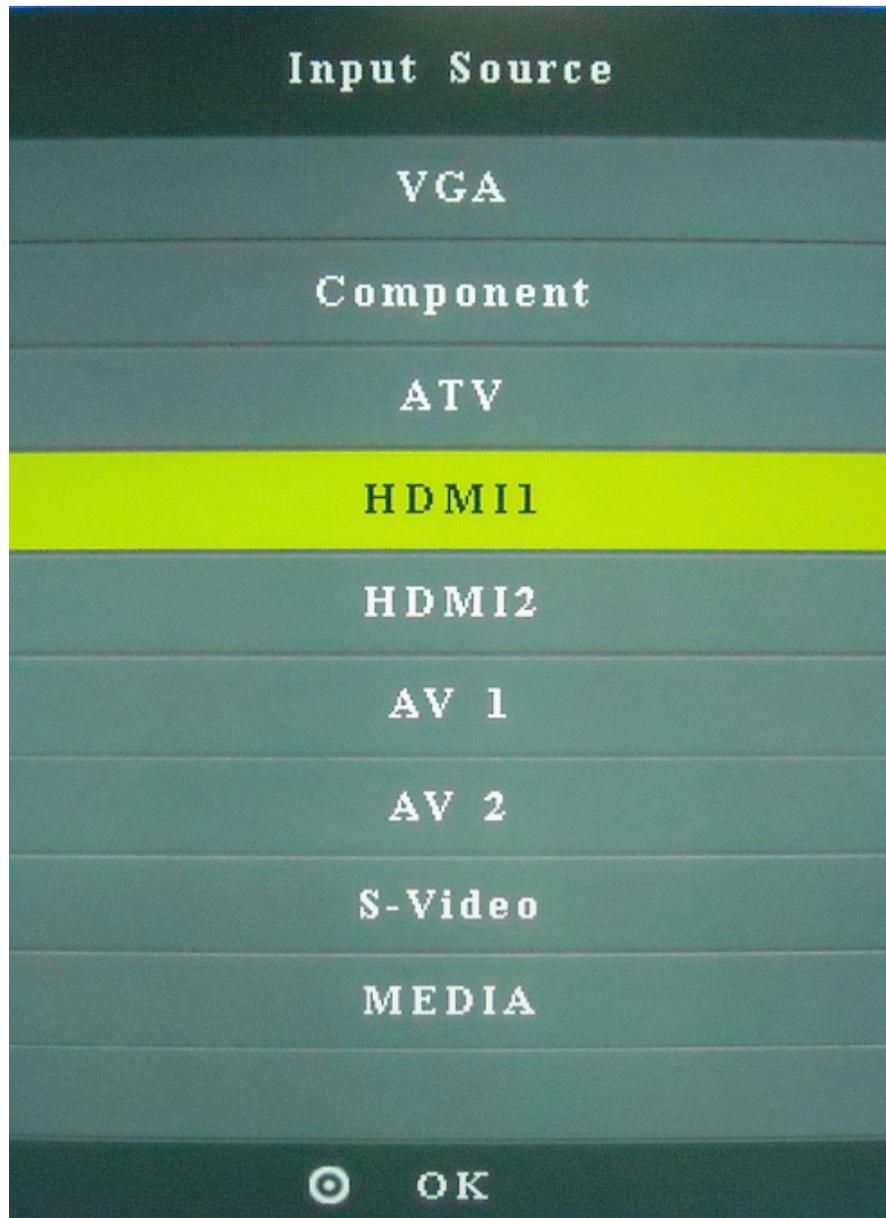
### Basic Operation

Press **INPUT** button to display the input source list.

Press **▼/▲** button to select the input source you want to watch.

Press **ENTER** button to enter the input source.

Press **EXIT** button to quit.



## Install and Operate IPBOARD Touch Software

---

### 1. Express Installation of IPBOARD Touch Software

This installation option is recommended for first time installation of the software.

1.1) Insert *IPBOARD Touch Software* disc.

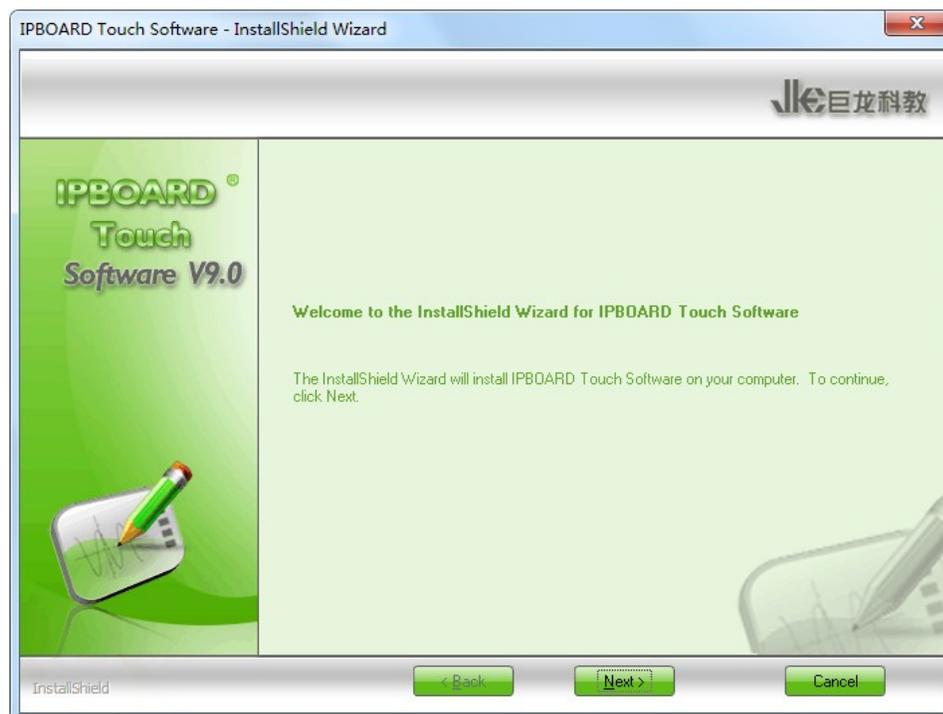
1.2) Click program logo.



1.3) Proceed to Installation Guide window.



1.4) Click  to access to the installation interface of IPBOARD Touch Software and USB Driver.



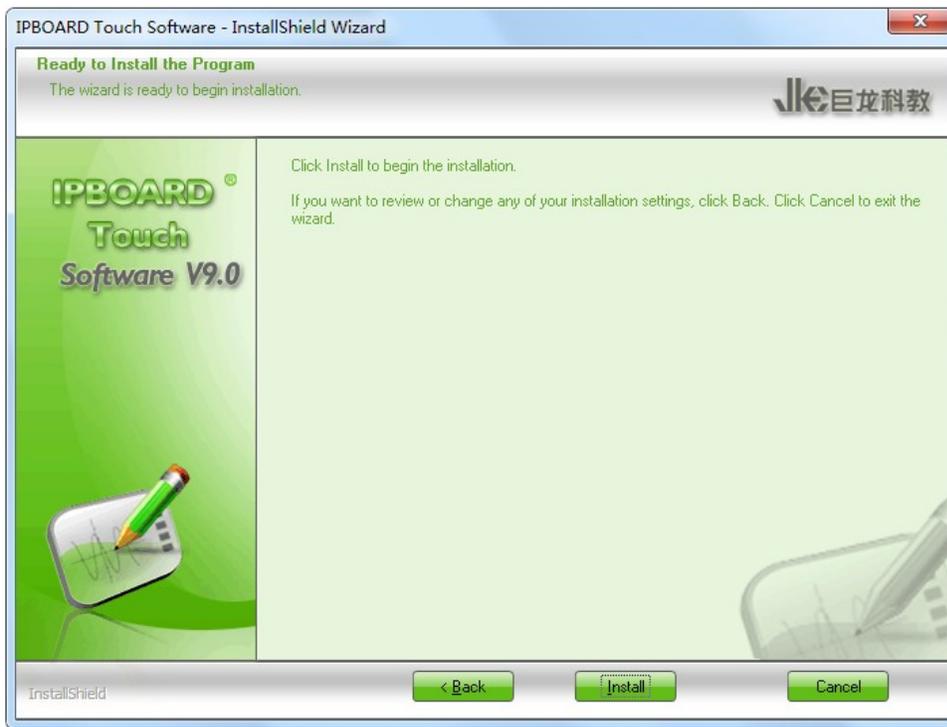
1.5) Click “**Next**” to select the language you want to install.



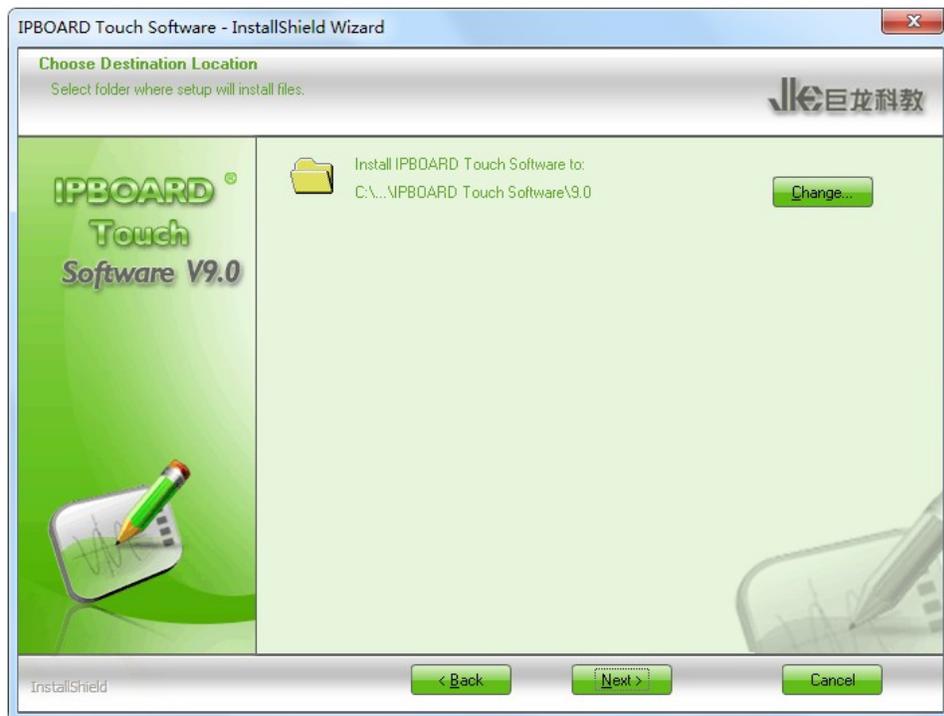
1.6) Select the setup type of installation. The setup type of Complete and Custom can be chosen. If select setup type “**Complete**”, you can install all the program features. If select setup type “**Custom**”, you can select the program features you want to install and set the installation path for IPBOARD Touch Software.



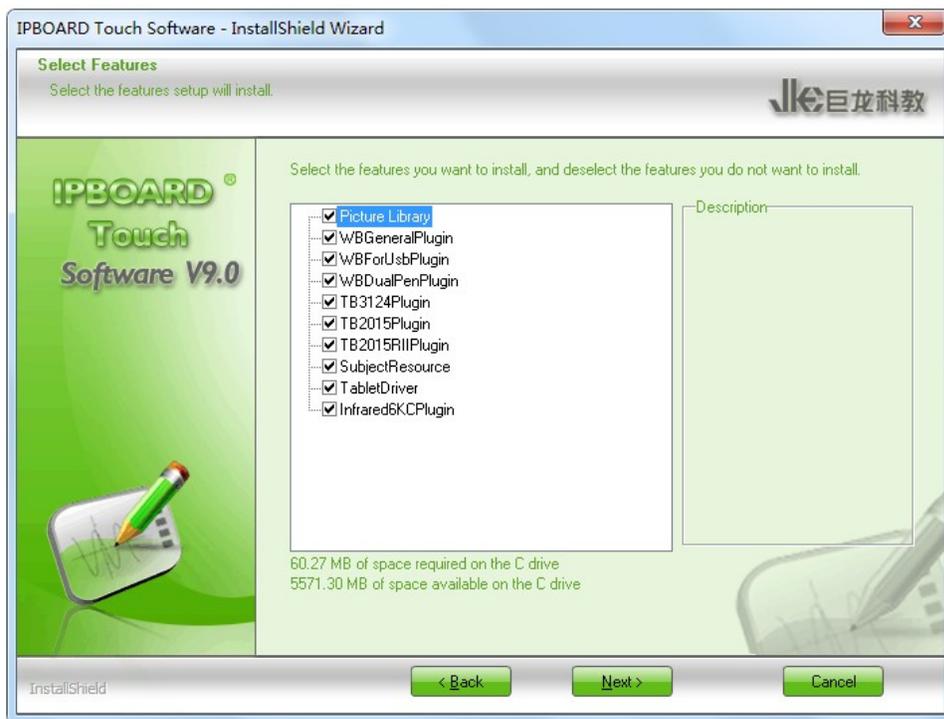
(1) Select “**Complete**”, and click “**Next**”→“**Install**” to start installation. The default installation path is “**C:\Program Files\Julong Educational\ IPBOARD Touch software\9.0**”



- (2) Select setup type **“Custom”**, click **“Next”** to enter Custom Dialog, and you can click **“Change”** to modify the installation path.



- (3) Click **“Next”** to select the features you want to install -- Picture Library, WBGeneralPlugin, WBForUsbPlugin, WBDualPenPlugin, TB3124Plugin, TB2015Plugin, TB2015RIIPlugin, SubjectResource, TableDriver, Infrared6KCPlugin.



(4) Click “Next”→“Install” to begin the installation.

1.7) After the successful installation of IPBOARD Touch Software, the prompt for installing FTDI USB Driver or Silicon USB Driver appears. You can remove the default option, click “Finish” directly to complete the installation.



## 2. Step-by-step Installation of IPBOARD Touch Software

This installation option is recommended when upgrading IPBOARD Touch Software or replacing the USB cable.

2.1 ) Follow 1.1) - 1.3) to enter installation guide window.

2.2 ) Click  to install IPBOARD Touch Driver and IPBOARD Touch Software by following the step-by-step guide.

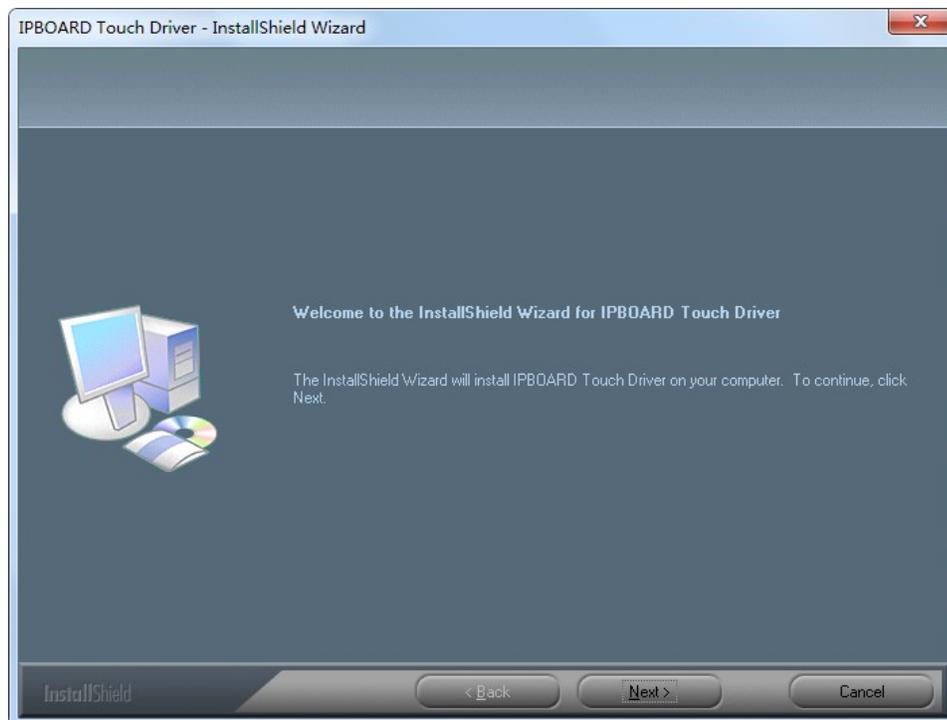


**Note:** No need to install USB driver (Plug-and-play USB interface).

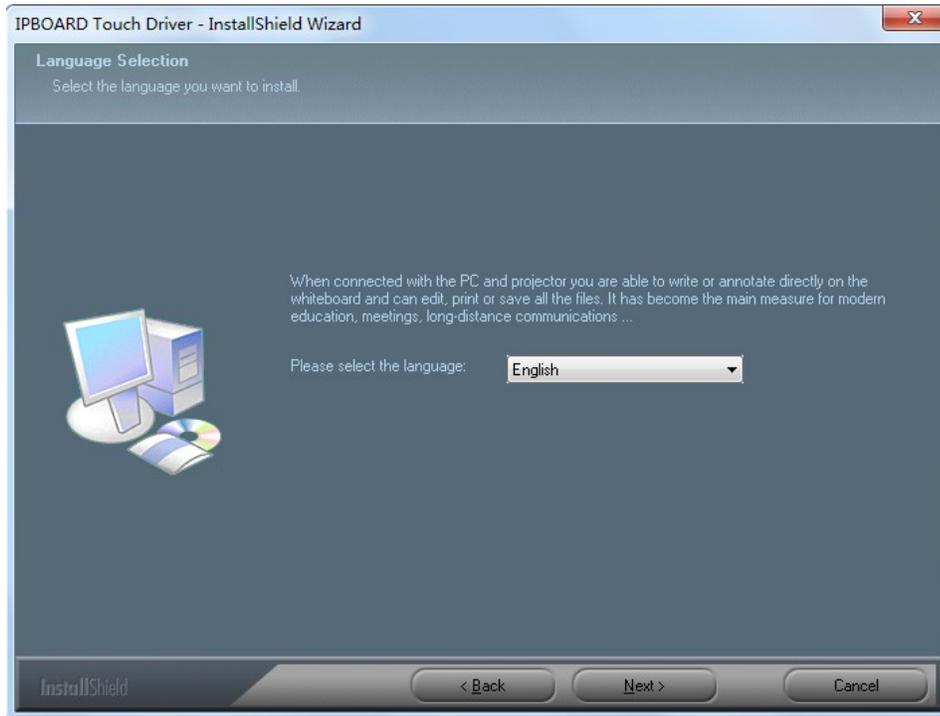
2.3 ) Install IPBOARD Touch Driver

Click  to install driver for Interactive Whiteboard.

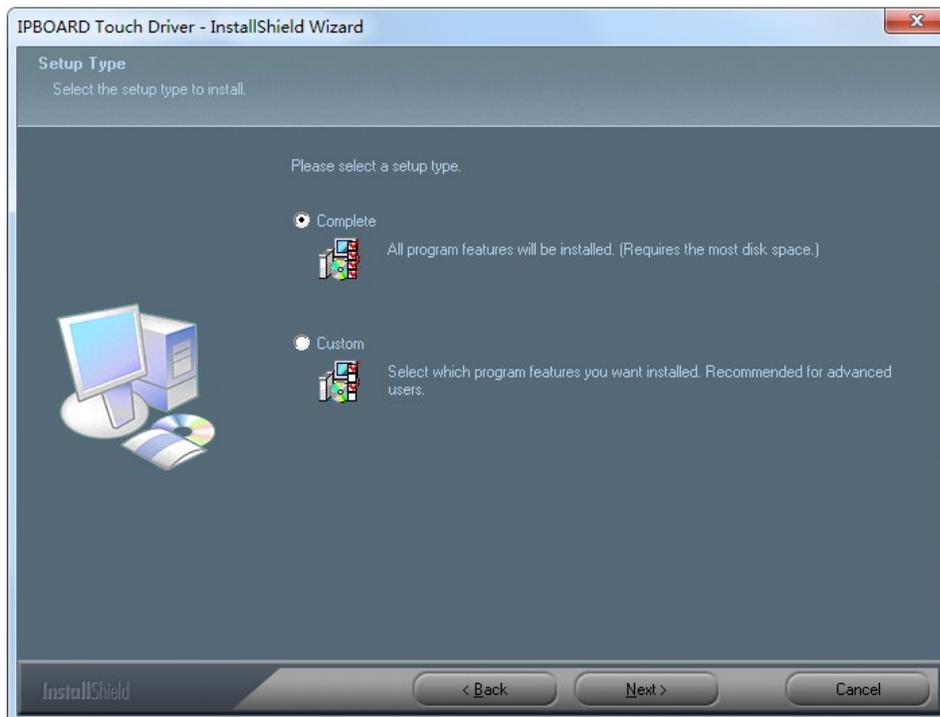
2.3.1 ) Access to the Install Shield Wizard for IPBOARD Touch Driver. Click "**Next**".



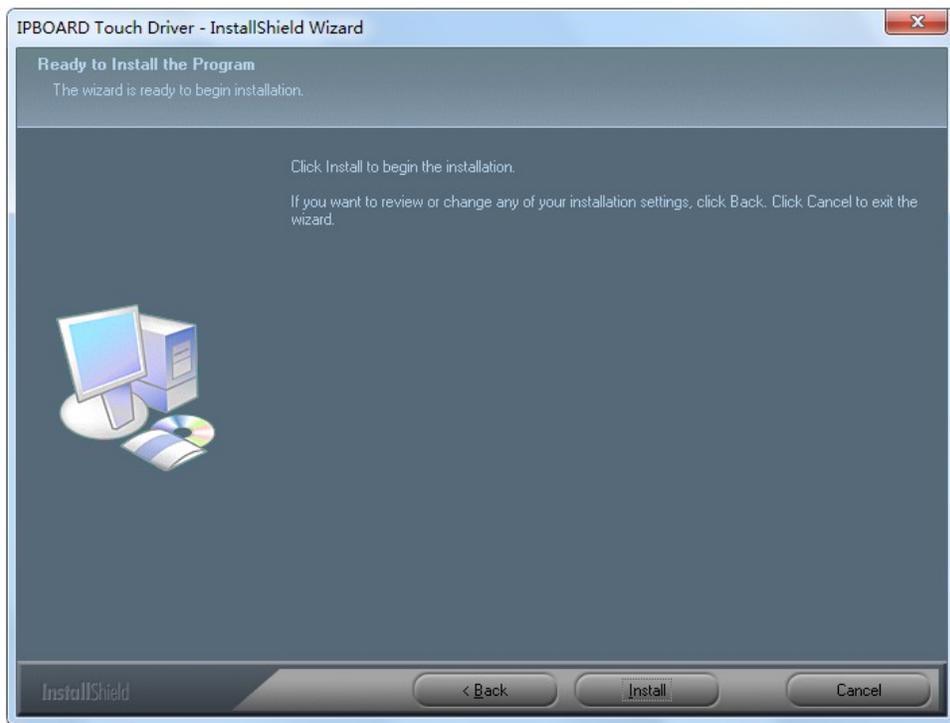
2.3.2) Select the language you want to install.



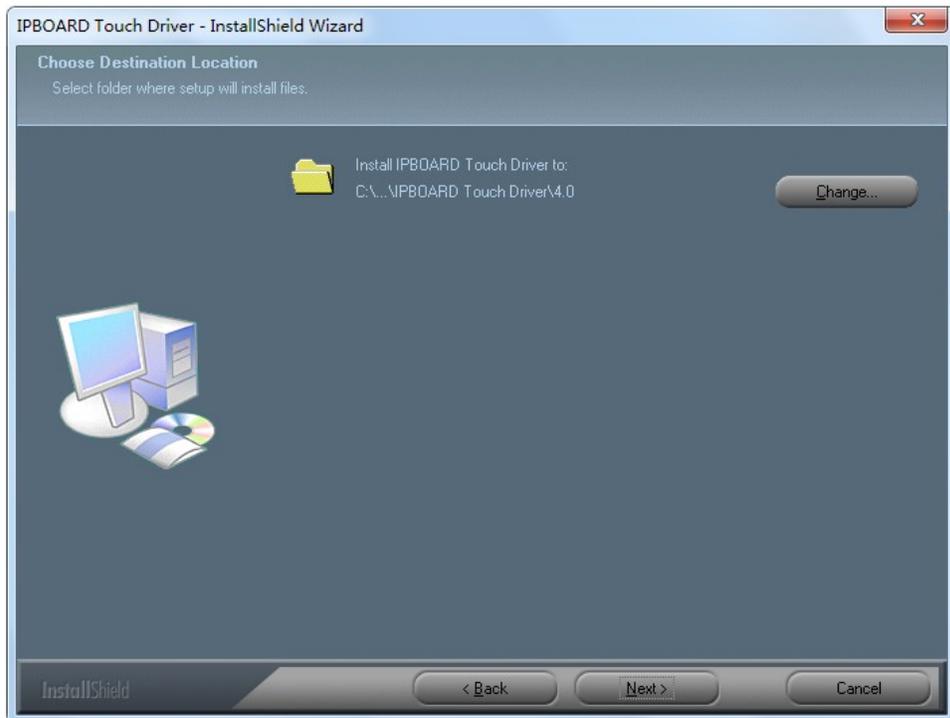
2.3.3) Select the setup type of installation. The setup type of “**Complete**” and “**Custom**” can be chosen. If select setup type “**Complete**”, you can install all the program features. If select setup type “**Custom**”, you can select the program features you want to install and set the installation path for IPBOARD Touch Software.



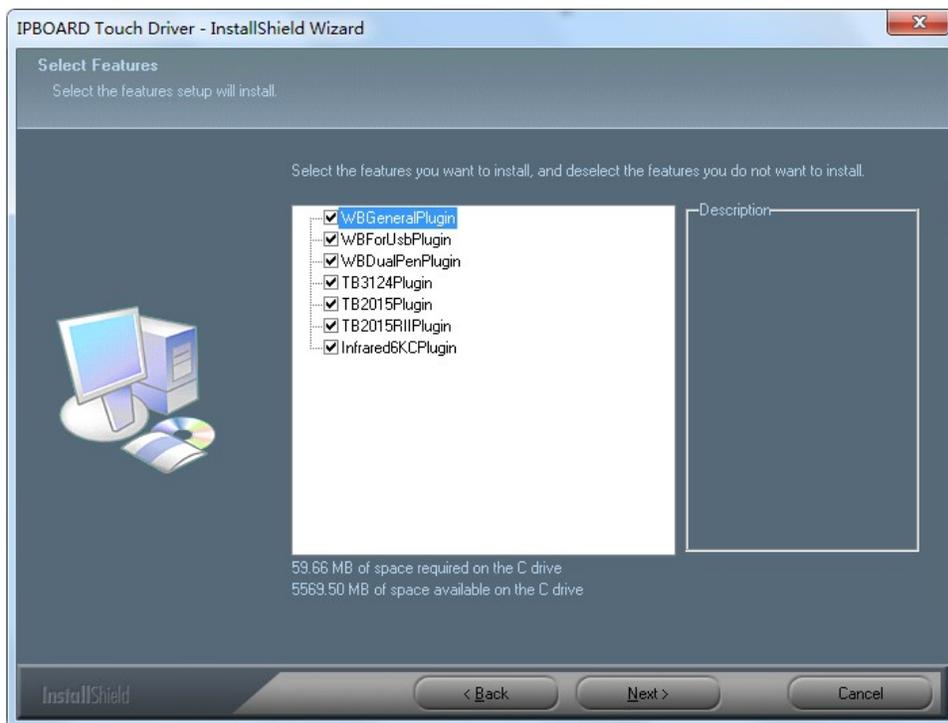
(1) If select the “**Complete**”, and then click “**Next**”→“**Install**”to start the installation. The default installation path is “**C:\Program Files\Julong Educational\ IPBOARD Touch Driver\4.0**”.



(2) Select **“Custom”**, and then click **“Next”** to enter setup type **“Custom”** dialog, and you can click **“Change”** to modify the installation path.



2.3.4) Click **“Next”**, select the driver(s) you want to install (WBGeneralPlugin, WBForUsbPlugin, WBDualPenPlugin, TB3124Plugin, TB2015Plugin, TB2015RIIPlugin and Infrared6KCPlugin).



2.3.5) Click **“Next”** → **“Install”** → **“Finish”** to complete the installation.

#### 2.4 ) Install IPBOARD Touch Software

Click  and follow 1.4 ) to 1.6 ) to complete the installation.

#### 3. Uninstall IPBOARD Touch Driver

Click , choose **“Remove”**, and uninstall step by step according to the guide.

#### 4. Uninstall IPBOARD Touch Software

Click **“Start”** → **“Control Panel”** → **“Add or Remove Programs”**, and select **“IPBOARD Touch**

**Software”**, and then click **“Add/Remove”**. (Or insert the software disk, click  for guidance of software uninstalling, and process step-by-step as per the instruction.)

## Run the Software

---

### 1. Startup Driver of Panel

Click “Start” → “All programs” → “ Julong Educational Software ”,  
→ “ IPBOARD Touch Software 9 ” → “ IPBOARD Touch Driver 4 ”, or double-click the shortcut icon



IPBOARD  
Touch  
Driver 4

on the desktop to start IPBOARD Touch Driver. It will show a tray icon of communication module , in status bar lower-right corner of desktop.

### 2. Startup Application Software of Panel

When the Panel and the PC have been properly connected, and the IPBOARD Touch Driver has been started up,

(1) Click “Start” → “All programs” → “ Julong Educational Software ” → ”

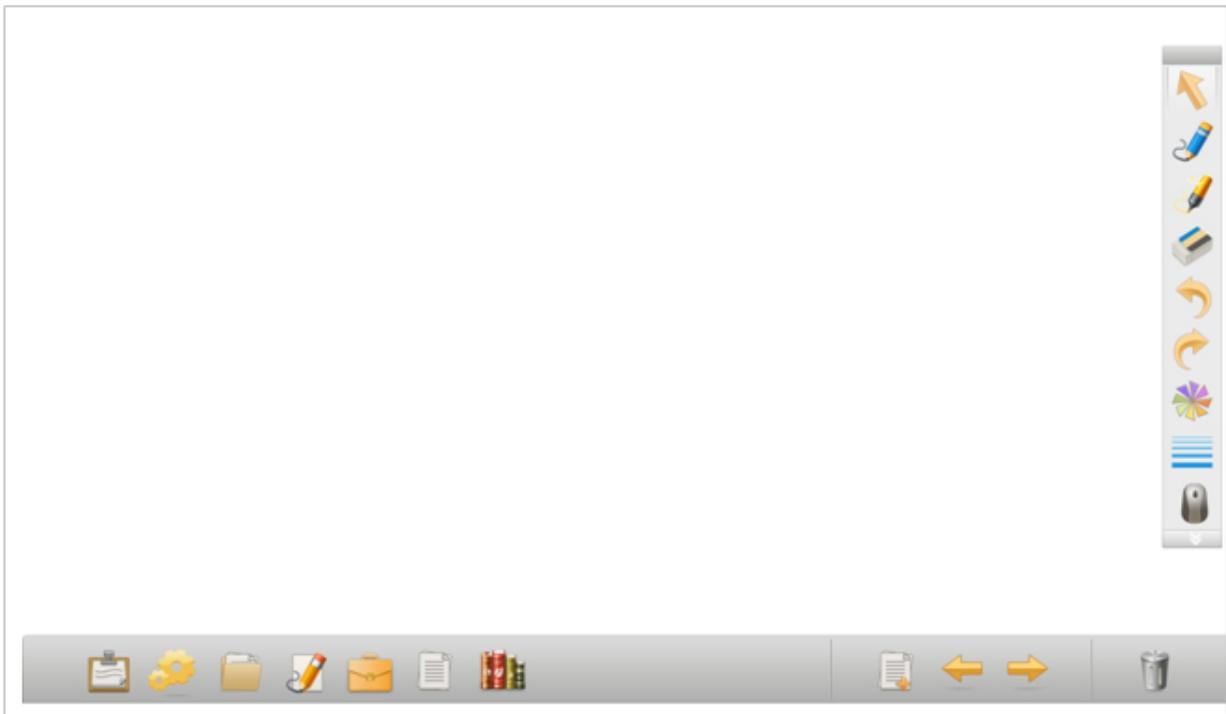
 IPBOARD Software 9 ” → “ IPBOARD Touch Software 9 ”, or double-click the



shortcut icon of IPBOARD Touch Software  on the desktop to startup application program, then it will popup a interface as shown below:



(2) After about 2 seconds, it will jump into the software interface:



The detailed methods of the operating software please refer the menu bar “**Documents**”→ “**Help**” to open the help document.

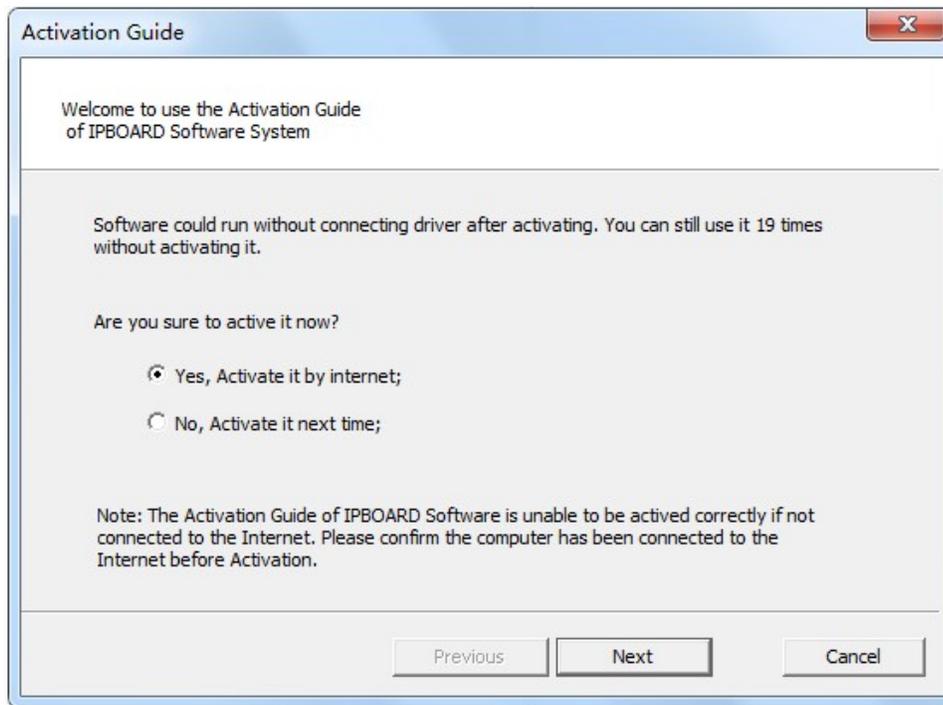
### 3. Activate IPBOARD Touch Software

If the PC and the Panel are correctly connected by the connecting cable, you need not to activate IPBOARD Touch software. If not, you have to activate IPBOARD Touch software, or else, you can use the trial version of IPBOARD Touch only 20 times.

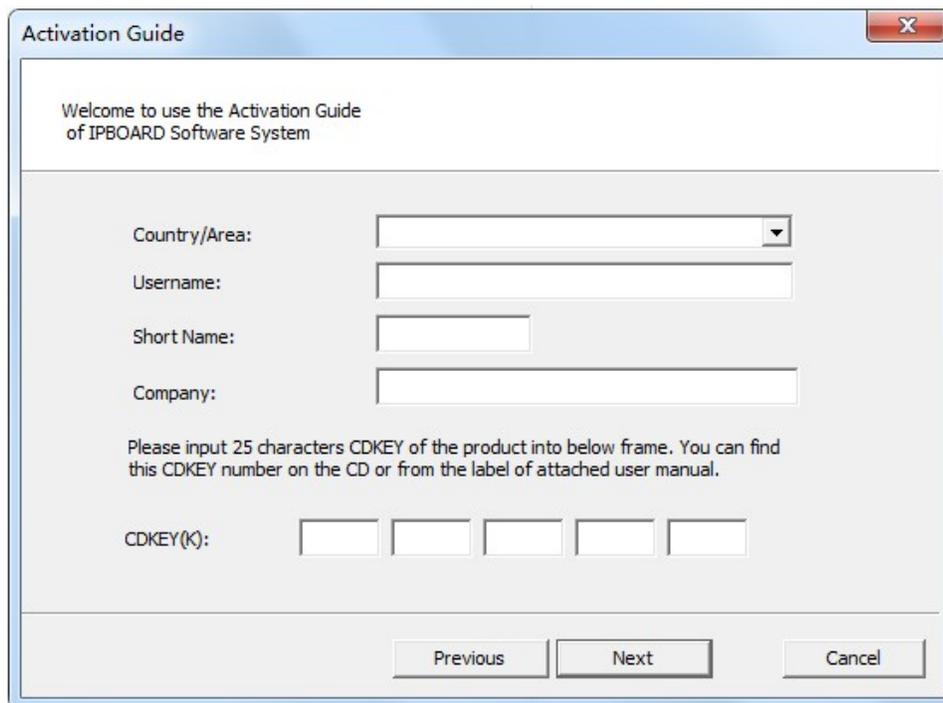
The method of activate the IPBOARD Touch Software is:



Double click the shortcut icon of IPBOARD Touch Software on the desktop, it will popup the dialog box as shown below:



1) If you select **“Yes, Activate it by internet;”**, please click **“Next”**, as shown below:



Herein input related information, such as Country/Area, Username and so on. And follow the Activation Guide to input the CDKEY, and do the next, until completed the activation of software.

2) If select **“No, Active it next time;”**, you can continue try to use the software only 20 times before you are required to activate the software.

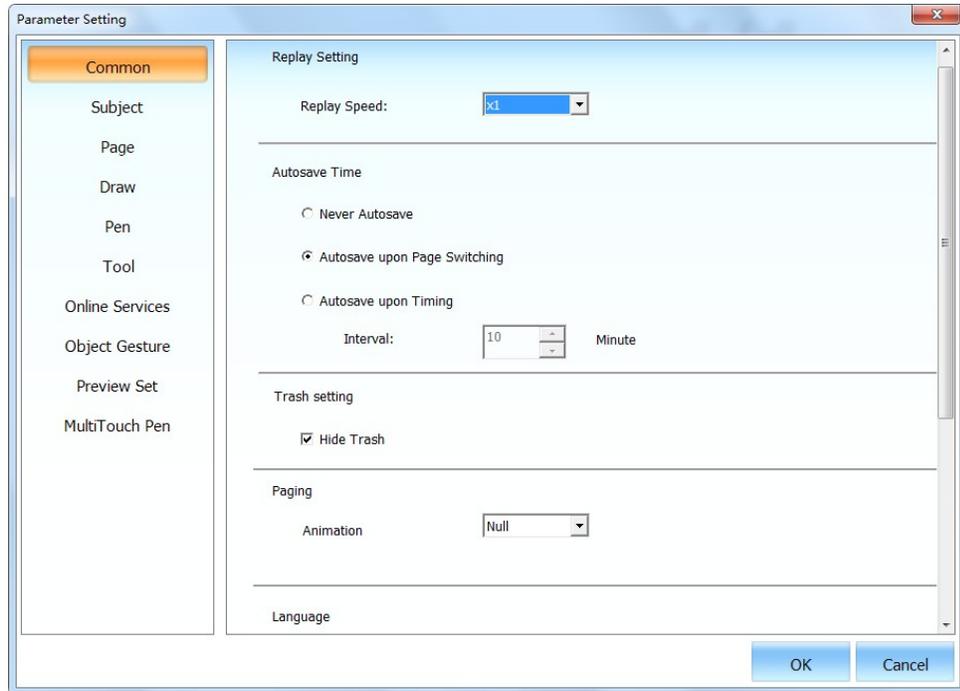
If you want to activate it after you have been started the software, you can also activate it by **“Help”** → **“Online Activation...”**, you can follow the Activation Guide to complete it.

#### 4. Options of IPBOARD Touch Software

Click “**Tool**” → “**Options...**”, you can set up the parameter of common, subject, page, draw, pen, tool, online service, object gesture, preview set and MultiTouch pen.

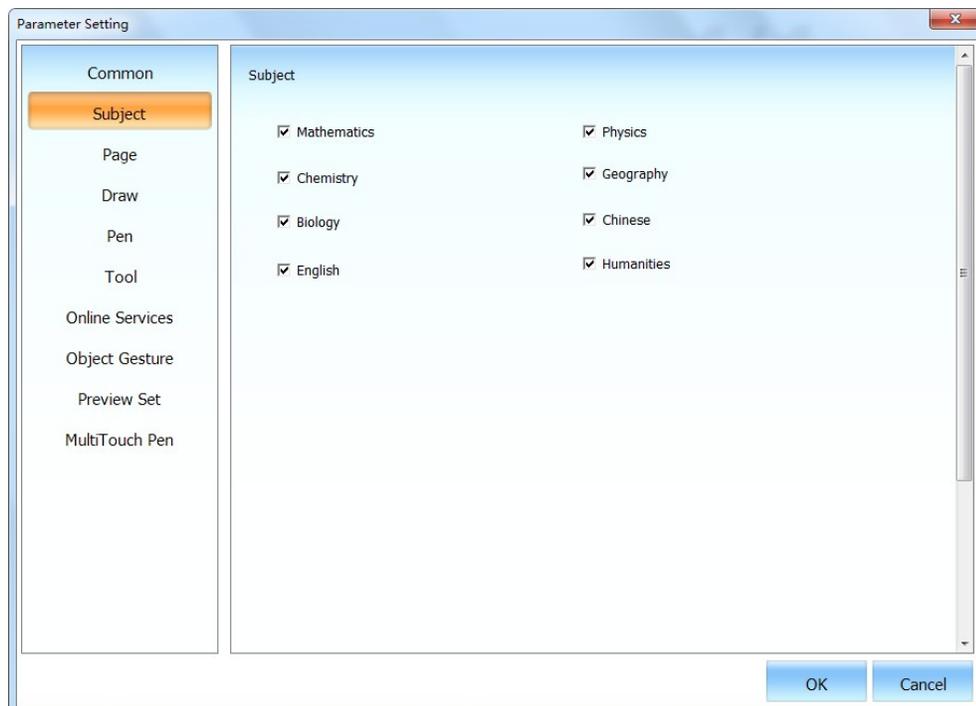
##### (1) Common

Select “**Common**”, you can set up the replay speed , autosave time paging and language.



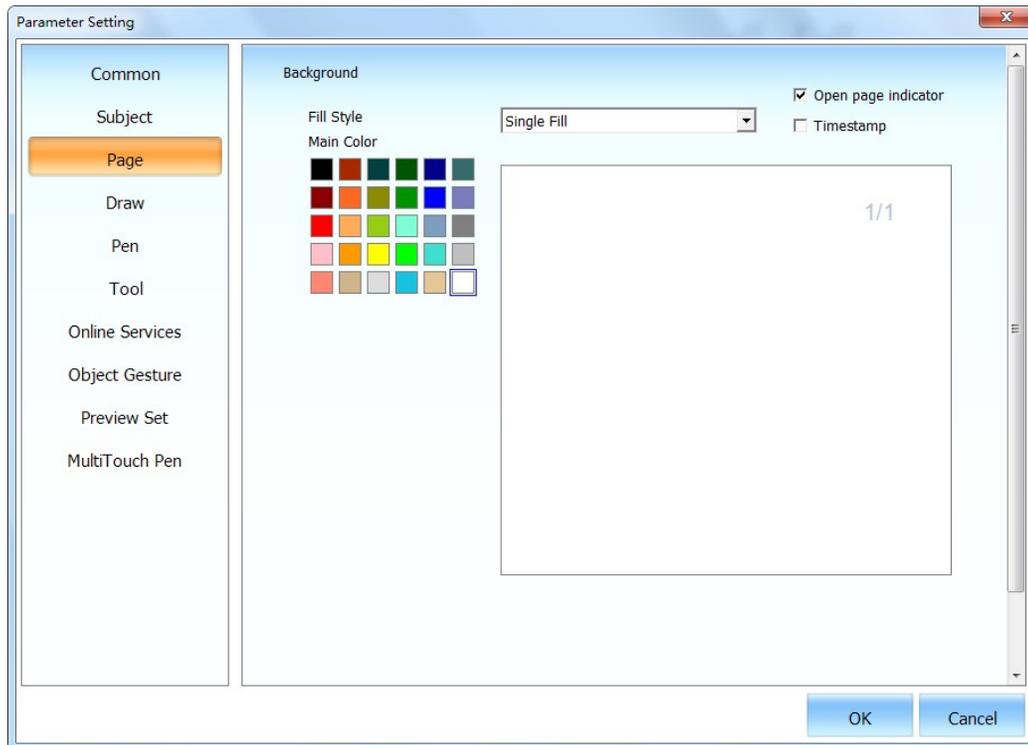
##### (2) Subject

Select “**Subject**”, you can choose the subject, then the tools and resources of the software will be about this subject.



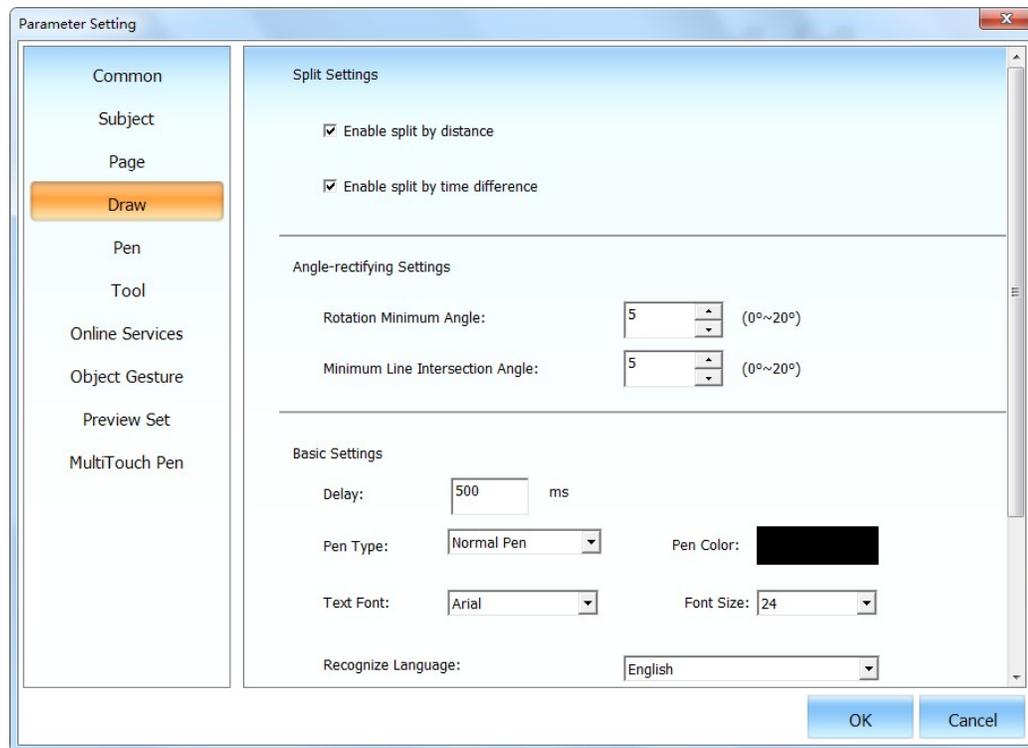
##### (3) Page

Select **“Page”**, you can modify background fill style and main color.



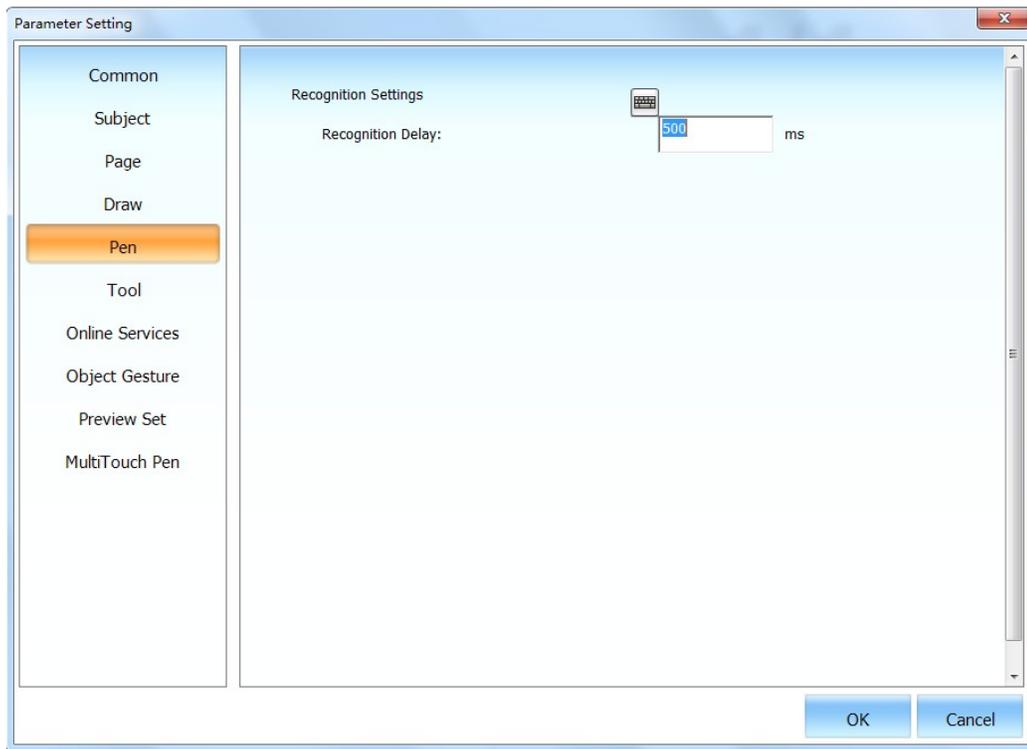
#### (4) Draw

Select **“Draw”**, you can modify split settings, angle-rectifying settings, basic settings and multipen mode.



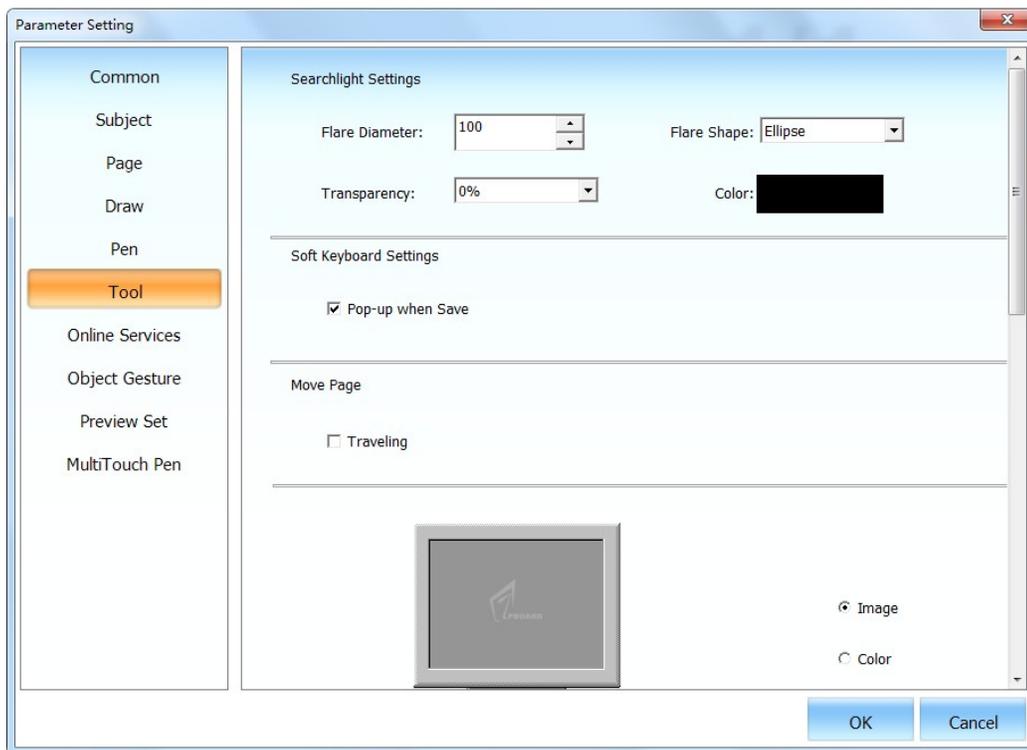
#### (5) Pen

Select **“Pen”**, you can modify recognition settings.



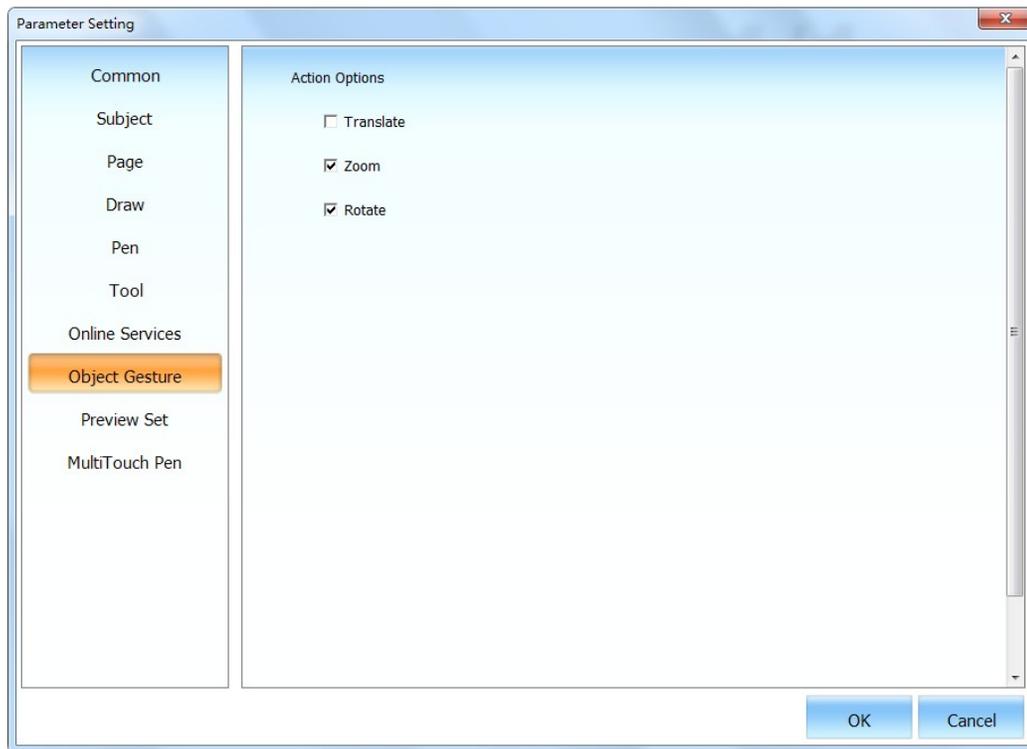
(6) Tool

Select “**Tool**”, you can modify searchlight, soft keyboard, cover screen, and move page settings.



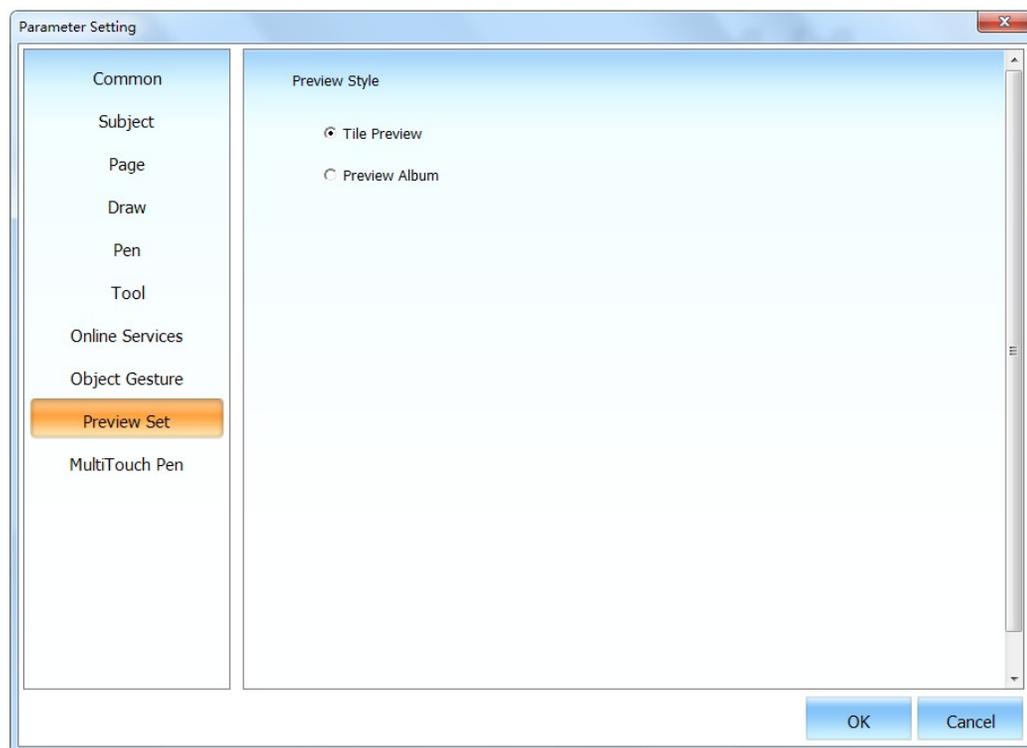
(7) Object Gesture

Select “**Object Gesture**”, you can choose the object gesture can be performed simultaneously.



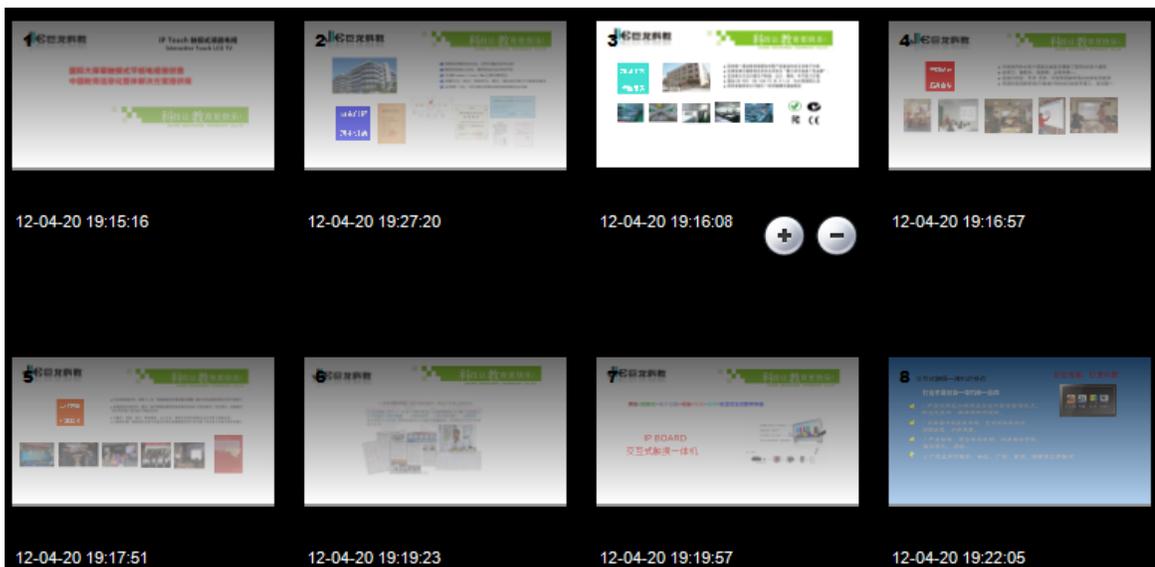
(8) Preview set

Select “**Preview Set**”, you can modify the preview style. It can be achieved via “**View**” menu.



① The Preview

The Preview style as shown below: click “+” or “-” to add or delete a page; double-click the page to exit the preview.

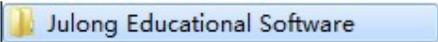
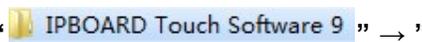


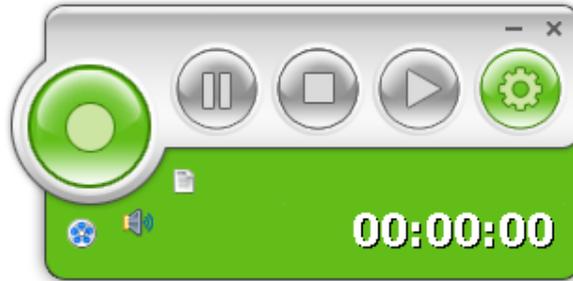
② Preview Album

The preview album as shown below: click the current page to exit the preview album.

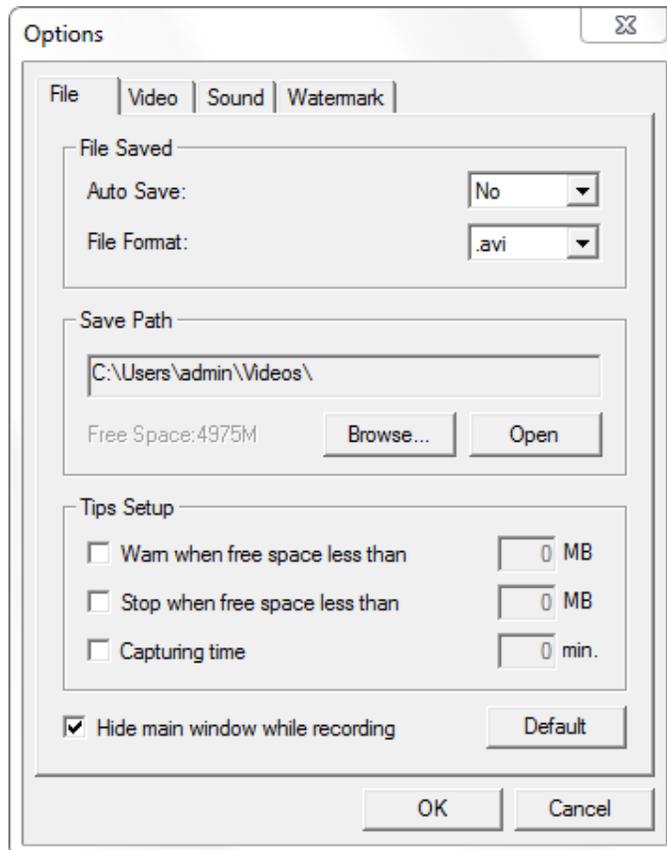


## 5. Screen Recorder ( format is .avi or .wmv )

- 1) Click “Start”→“All Programs”→”  ”→  
“  ” →”  ” , and will pop-up the following window:



- 2) Click  , set relevant parameters.
- 3) Click  , change the save path, and the default path is “C:\Users\admin\Videos”.



## Troubleshooting

---

If, after reading these operating instructions, you have additional questions related to the use of your panel, please call the services center in your local area.

Before calling service, please check the symptoms and follow suggested solutions.

### Remote Control

<b>Problem</b>	<b>Possible Solutions</b>
Remote Control does not operate	<ul style="list-style-type: none"><li>● The batteries could be weak. Replace the batteries.</li><li>● Check the orientation of the batteries.</li><li>● Make sure the panel power cord is plugged in.</li></ul>

### Video and Audio

<b>Problem</b>	<b>Possible Solutions</b>
No picture (screen not lit) No sound	<ul style="list-style-type: none"><li>● Make sure the power cord is plugged in.</li><li>● Press POWER on the panel or on the remote control.</li><li>● Check to see the signal source is ON.</li></ul>
Dark, poor or no picture (screen lit), good sound	<ul style="list-style-type: none"><li>● Select a proper picture mode.</li><li>● Adjust the brightness in the video setting.</li><li>● Check the antenna connections.</li></ul>
No color/dark picture /color is not correct	<ul style="list-style-type: none"><li>● Adjust the color saturation in the video setting.</li></ul>
Only snow and noise appear on the screen for TV mode	<ul style="list-style-type: none"><li>● Check the antenna connections.</li><li>● Try another channel; it could be station trouble.</li></ul>
Dotted lines or stripes	<ul style="list-style-type: none"><li>● Adjust the antenna.</li><li>● Move the panel away from noise sources such as cars, neon signs, or hair dryers.</li></ul>
Double images when TV mode operation	<ul style="list-style-type: none"><li>● Using a highly directional outdoor antenna or a cable may solve the problem.</li></ul>

Good picture, no sound	<ul style="list-style-type: none"> <li>● The sound may be muted. Press MUTE again to cancel. Adjust the audio level.</li> <li>● Make sure the stereo is set to stereo or mono.</li> </ul>
Audio noise	<ul style="list-style-type: none"> <li>● Communication problems may occur if infrared communication equipment (e.g. infrared cordless headphone) is used near the panel. Move the infrared communication equipment away from the panel until the noise is eliminated.</li> </ul>

### General Problem

Problem	Possible Solutions
One or some channels can't be displayed	<ul style="list-style-type: none"> <li>● These channels may be locked. Please unlock them.</li> <li>● These channels may be set to be skipped in the channel list. You may reset them or select them with 0-9 number buttons</li> </ul>
Some items can't be accessed	<ul style="list-style-type: none"> <li>● If a setting option appears in gray, this indicates that the settings option is unavailable in current input mode.</li> </ul>
Panel cabinet creaks	<ul style="list-style-type: none"> <li>● When the panel is in use, there is a natural rise in temperature, causing the cabinet to expand or contract. This may be accompanied by a slight creaking noise. This is not a malfunction.</li> </ul>
Control buttons do not operate	<ul style="list-style-type: none"> <li>● Disconnect the power cord and wait for a few seconds. Then re-plug the power cord and turn on the unit again.</li> </ul>

Note: If your problem is not solved, turn the unit off and then on again. Never attempt to repair a defective panel yourself.

## Specifications

### Product Dimension

Size	Configurations	Dimension	
55"	Built-in PC, 3D Sensor (Optional)	Display Area	1209.6(H) × 680.4(V)mm
		Outline Dimension	1287(H) × 745(V)×115(D)mm
65"	Built-in PC, 3D Sensor (Optional)	Display Area	1428.5(H) ×803.5(V)mm
		Outline Dimension	1508(H) × 878(V) ×115(D)mm
70"	Built-in PC (Optional)	Display Area	1538.88 ( H ) ×865.62 ( V ) mm
		Outline Dimension	1660(H) ×991(V)×125(D)mm
84"	Built-in PC (Optional)	Display Area	1904(H)×1096(V)mm
		Outline Dimension	2136(H)×1286(V)×125(D)mm

**Note:** This Table is for reference only. Refer to the actual product.

### Specifications of Touchable LCD Panel with LED / TV Control Board

Chip Set	MST6M48RHS			
OSD Language	Chinese, English			
Screen	Panel Type	LCD Panel with LED backlight		
	Interface	Dual/ Single LVDS Interface ( Max: 10 bit)		
	Max Resolution	1920 X 1080		
Video Input	TV tuner	Receiving Range	55.25MHz ~ 863.25MHz	
		Input Impedance	75Ω	
		Video System	PAL/SECAM/NTSC	
		Audio System	B/G, D/K, I, M	
		Max Storage Channels	200CH	
	PC-RGB	Format	Up to SXGA@75Hz	
	HDMI	480i, 480p, 57i, 576p, 720p, 1080i, 1080p		
	YPbPr	480i, 480p, 57i, 576p, 720p, 1080i, 1080p		
	S-Video	S-Y: 0.714 V <sub>p,p</sub> ±5%, S-C: 0.286 V <sub>p,p</sub> ±5%		
	CVBS	Composite Video	PAL/SECAM/NTSC	

		Video Signal Magnitude	1.0 V <sub>p,p</sub> ±5%
Audio Input	PC Audio	Earphone Input, 3,5mm	0.2 ~ 2.0 V <sub>RMS</sub>
	S-Video	Left/ Right Channel	0.2 ~ 2.0 V <sub>RMS</sub>
	CVBS	Audio Terminal Input	
	YPbPr	RCA x 2	
Audio Output	Frequency Response	100Hz ~ 15KHz@±3dB(1KHz, 0dB for Reference Signal)	
Speakers x 2	Max Output Power	2 X 9W (8ΩTHD + N < 10% @ 1KHz (Supply Power Voltage: 24V, Audio Input: 0.5 V <sub>RMS</sub> )	
Power; Panel internal	Input Voltage	24V/12V/5V/5VSB	
	Flooding Screen Voltage	5V,12V	
	Power Management	Stand-by Power Consumption < 0.5W (Board Only)	
Comb Filtering Function	3D		
Release Interleave Function	3D		
Weak Signal Enhanced Function	Yes		
De-noise Function	Yes		
Extended Function	DVD, External USB, External HDMI, External AV Input		
USB Function	For Multimedia Play and Software Upgrade		

Key Function	Menu, Ch+, Ch-, Vol-, Vol+, Signal Source, Power		
Terminals	Input	TV	1 IEC Connector
		USB	4 x USB Port (A Type)
		HDMI	2 x HDMI Terminal (A Type)
		PC-RGB	1 D-Sub Terminal(Blue, 15Pin)
		PC-RGB Audio	1 3.5mm mini Terminal (Black)
		YPbPr	3 RCA Terminal (Green, Blue, Red) component video
Terminals	S-Video	1 S-Video Terminal (Black)	

Terminals con't		CVBS composite video	2 RCA Terminal (Yellow)
		Audio	2 RCA Terminal (Red, White)
	Output	CVBS Composite Video	1 RCA Terminal (Yellow)
		AV Audio Output	2 RCA Terminal (Red, White)
		Earphone Output	1 3.5mm mini (Black)
		SPDIF	(digital audio ) RCA

### TFT-LCD Screen Specification

Items	Specification
Driver	a-Si TFT active matrix
Display colors	1073.7M (8-bit +FRC) ( Colors)
Color Gamut	72% ( NTSC)
Number of Pixels	1920 x 1080 pixel
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.744mm
Display Mode	Transmissive; Normally Black
Surface Treatment	HCLR, 3H
Total Power Consumption	220W (including BLU & Signal)
RoHS	RoHS Compliance

Specifications subject to change without notice.

Latest manuals and software at Dukane AV Div website [www.dukaneav.com](http://www.dukaneav.com)

#### DUKANE CORP

##### Audio Visual Products

2900 Dukane Drive St. Charles, Illinois 60174

[www.dukaneav.com](http://www.dukaneav.com)

Toll-free: 888-245-1966

Fax: 630-584-5156

E-mail: [avsales@dukane.com](mailto:avsales@dukane.com)

Toll-free Support; [avservice@dukane.com](mailto:avservice@dukane.com)

800-676-2487

## Specifications of Optical Touch Overlay

Items		Specification
Active Touch Area		The same as active display area
Frame Material		Aluminum Alloy and Kirksite
Appearance Color		Black
Glass Type		Tempered Glass
Response Time		< 10 ms
Touch Resolution		32768 (W) x 32768 (D)
Data Communication		Coordinate Output
Minimum Discernible Object		5 mm
Touch Accuracy		±2 in the 90% touch area
Touch Method		Finger, brush-pencil, pointer or any other touching induction medium.
Touch Times		Unlimited
Interface Type		USB
USB Line Length		Normally 1.5 meter long
USB	Terminal Type	A type USB
	Communication Interface	Full speed USB 2.0
	Power Supply	USB
Temperature Range	Operating Temperature	-10℃ ~ 70℃
	Storage Temperature	-40℃ ~ 85℃
Relative Humidity	Operating Humidity	0 ~ 85% RH, Non-condensing
	Storage Humidity	0 ~ 95% RH, Non-condensing
Power		< 1 W
Current		< 200 mA
Antistatic		ESD: touch discharge 8kV, air discharge 15kV
Touch Type		Single touch /Multi-touch gesture recognition / 2-point touch
Operating System		Windows XP/ 2000/ 2003/ Vista/ Windows 7/ Linux
Firmware Upgrade Function		Support USB upgrade

DUKANE CORP AV DIVISION

All rights reserved.