BPC-3610 Series

**10.4" Small Size Panel PC
with CF, TV-Out, AC/DC P/S**

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Declaration of Conformity -- CE Mark

BOSER Technology hereby acknowledges that compliance testing in accordance with applicable standards of the EU's EMC Directive, 89/336/EEC, was successfully completed on a sample of the equipment identified below:

Equipment Class:	*Information Technology Equipment*
Product Model Series:	***BPC-3610***
This Product Complies With:	*EN55022:* *Class A for Radiated emissions*
	EN50082-2: *Heavy Industrial EMC Immunity*

We, the undersigned, hereby declare that the equipment specified above conforms to the above directives and standards.

Manufacturer:
BOSER TECHNOLOGY CO., LTD.

Safety Instructions

The safety recommendations outlined in this section are to be read, understood and followed before operating the product. Keep this information in a safe place for future reference. Failure to comply with any of the following safety procedures could result in serious damage.

- Do not operate product for any purposes other than its intended use
- This product is intended for indoor use only
- Do not operate product if power cord is damaged in anyway
- Do not insert objects into openings
- Do not immerse product in water or permit liquids to spill inside
- Turn off power when unattended or not in use. Unplug product before moving it or when it is not in use for an extended period of time. The socket-outlet shall be installed near the equipment and shall be easily accessible
- Do not alter or extend electric plug. Plug is configured for appropriate electrical supply
- Do not overload electrical outlets beyond their capacity as this can result in a fire

NOTE: *DO NOT TOUCH THE PRODUCT OR ANY OTHER SENSITIVE COMPONENTS WITHOUT ALL NECESSARY ANTI-STATIC PROTECTIONS.*

Life Expectancy of Constituent Parts

This section describes the life expectancy of constituent parts (backlight, power supply, internal cooling fan and touch screen) which make up to BPC-3610.

- **TFT Display Backlight**
  Display brightness decreases over time with use. The expected operating lifetime of the backlight time to reach 50% initial brightness) is 30,000 hours (assuming continuous lit state at 25 degrees C). Actual lifetime before result may be different.

- **Touch Screen**
  The operating lifetime of the touch screen is approximately 1 million operations (as tested by mechanical manipulation under 100g of force at a rate of two presses per second)

Chapter 1

General Description

The BPC-3610 series is an industrial Panel PC. The rear of BPC-3610 design with easy assembly when needed.

The BPC-3610 series has a 10.4" touch screen that operates under all types of working environment. It comes with a reliable power supply and 1 of 4cm ball bearing cooling fan that enhance system stability.

The unit can also be mounted in several configurations. A variety of BOSER SBCs is compatible with the BPC-3610 series. Please see *1.2 Specification* section for more detail.

● The BPC-3610 series is IBM PC/AT compatible and can draw from a large body of hardware and software resources worldwide

● 70W AC or 80W DC power supply with UL, CE, CSA, TUV approved

● Variety of operation system can be used in BPC-3610

● The BPC-3610 features an all-in-one flat display and keyboard less operation.

● The BPC-3610 can be use widely such as, Digital signage, Factory Automation, oil Industry, Entertainment, transportation, POS, and kiosk, etc...

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● You can select a mainboard from various range to meet your optimal configuration and budget.

1.1 Major Features

The BPC-3610 series come with the following features:
➢ Aluminum front panel design
➢ 10.4" TFT color panel display
➢ Built-in touch screen, mainboard, 70W AC or 80W DC P/S
➢ BPC-3610-C onboard VIA Eden 667MHz CPU
   BPC-3610-E onboard VIA V4 Eden 1GHz CPU
➢ Onboard graphics, ethernet, audio controller
➢ 2.5" HDD space x 1, 4cm ball bearing cooling fan x 1
➢ BPC-3610-C provides CF, COM x 3, USB x 1, TV-Out
   BPC-3610-E provides CF, COM x 3, USB2.0 x 5

1.2 Specifications

BPC-3610-C

● **System**

■ **SBC**
   HS-2605

■ **CPU**
   VIA Eden 667MHz CPU

■ **BIOS**
   AMI PnP Flash BIOS

■ **System Chipset**
   VIA VT8606/VT82C686B

■ **System Memory**
   One 144-pin SO-DIMM Socket up to 512MB SDRAM

■ **Display Chipset**
   VIA VT8606

■ **Audio Chipset**
   VIA VT1612A

■ **Ethernet Chipset**
   RealTek RTL8100 10/100 Mbps LAN

■ **Drive Bay**
   1 x 2.5" PATA HDD space

■ **Storage**
   One Type II CF socket

■ **Watchdog Timer**
   Sets 1/2/10/20/110/220 seconds activity trigger with NMI or Reset

● Panel & Touch Screen

■ **LCD Size**
10.4"

■ **Max Resolution**
800(H) x 600(V) pixels RGB stripes arrangement

■ **Brightness (cd/m^2)**
250 cd/m^2 (Typ.)

■ **LCD Color**
6-bit, 262,144 colors

■ **Pixel Pitch (mm)**
0.264(H) x 0.264(V)

■ **Touch Screen**
10.4" resistive

## ● Mechanical & Environmental

■ **Thermal Solution**
4cm ball bearing cooling fan x 1

■ **Front Panel Color**
Black

■ **Dimension (LxHxW)**
28.5 x 22.5 x 6.8 mm

■ **Operation Temperature**
0~+45 degrees C

■ **Storage Temperature**
-20~+70 degrees C

■ **EMC**
FCC/CE

■ **Front Panel Protection**
IP65 Compliance

■ **Power Supply**
70W AC or 80W DC P/S

● I/O Interface

■ **External I/O**
USB x 1, Line Out, MIC In, COM x 3, CF, TV-Out, LAN, PS/2 KB/MS, VGA

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■ **Rear I/O**
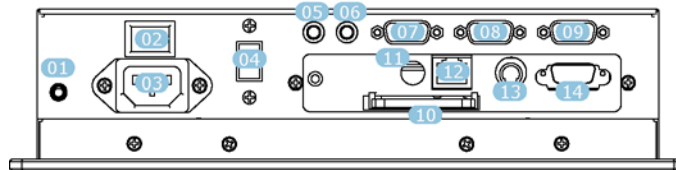
01. Brigntness	**06.** MIC In	**11.** TV-Out
02. ON/OFF	**07.** COM 1	**12.** LAN
03. AC Power In	**08.** COM 2	**13.** KB/MS
04. USB	**09.** COM 3	**14.** VGA
05. Line Out	**10.** CF	

BPC-3610-E

● **System**

■ **SBC**
HS-2615

■ **CPU**
VIA V4 Eden 1GHz CPU

■ **BIOS**
Award PnP Flash BIOS

■ **System Chipset**
VIA CX700(M)

■ **System Memory**
One 200-pin SO-DIMM Socket up to 1GB DDR2 SDRAM

■ **Display Chipset**
VIA CX700(M)

■ **Audio Chipset**
VIA VT1708A

■ **Ethernet Chipset**
Dual RealTek RTL8139DL 10/100 Mbps LAN

■ **Drive Bay**
1 x 2.5" HDD space

■ **Storage**
One Type II CF socket

■ **Watchdog Timer**
Software programmable time-out intervals from 1~255 sec.

● **Panel & Touch Screen**

■ **LCD Size**
10.4"

■ **Max Resolution**
800(H) x 600(V) pixels RGB stripes arrangement

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- ■ **Brightness (cd/m^2)**
  250 cd/m^2 (Typ.)
- ■ **LCD Color**
  6-bit, 262,144 colors
- ■ **Pixel Pitch (mm)**
  0.264(H) x 0.264(V)
- ■ **Touch Screen**
  10.4" resistive

● **Mechanical & Environmental**

- ■ **Thermal Solution**
  4cm ball bearing cooling fan x 1
- ■ **Front Panel Color**
  Black
- ■ **Dimension (LxHxW)**
  28.5 x 22.5 x 6.8 mm
- ■ **Operation Temperature**
  0~+45 degrees C
- ■ **Storage Temperature**
  -20~+70 degrees C
- ■ **EMC**
  FCC/CE
- ■ **Front Panel Protection**
  IP65 Compliance
- ■ **Power Supply**
  70W AC P/S

● **I/O Interface**

- ■ **External I/O**
  USB2.0 x 5, Line Out, MIC In, COM x 3, CF, LAN x 2, PS/2 KB/MS, VGA
- ■ **Rear I/O**
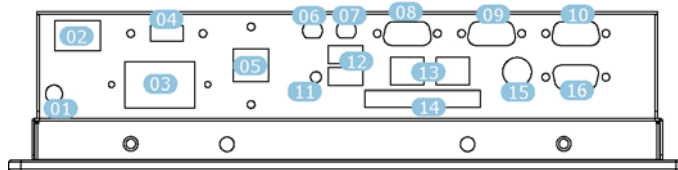
01.	Brigntness	**07.**	MIC In	**13.**	LAN * 2
02.	ON/OFF	**08.**	COM 1	**14.**	CF
03.	AC Power In	**09.**	COM 2	**15.**	KB/MS
04.	USB2.0	**10.**	COM 3	**16.**	VGA
05.	USB2.0 * 2	**11.**	Reset Button		
06.	Line Out	**12.**	USB2.0 * 2		

1.3   Dimensions

NOTE: Dimension measure in mm.
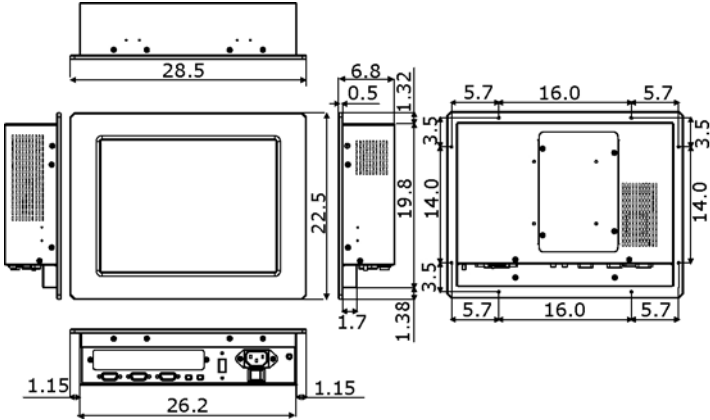
Chapter 2

Unpacking

2.1   Opening the Delivery Package

The BPC-3610 is packed with an anti-static bag. The board contains sensitive electrical components that are easily damaged by static (electricity). Do not remove the anti-static wrapping until proper grounding have been taken. Safety instruction has been described the anti-static precautions and procedures in the previous.

2.2   Inspection

After unpacking the Panel PC, place it on a raised surface and carefully inspect it for any damage that might have occurred during shipment. Grounding the board and exercise extremely careful to prevent any damages to the board from static.

The BPC-3610 delivery package contains the following items:

- **BPC-3610 Panel PC x 1**
- **Wallmount kit x 4**
- **Power cable x 1**
- **Mainboard Driver CD x 1**
- **Panel PC Driver CD x 1**
- **System Board User's Manual x 1**
- **BPC-3610 User's Manual x 1**

It is recommended that user keeps all the parts of the delivery package intactness and store them in a safe/dry place for any require the returning the product. In case you find any missing and/or damaged items from the list, please contact your dealer or sale representatives immediately.

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Chapter 3

Hardware Installation

This chapter illustrates how to install components into the Panel PC system. External interface please refers to system board's manual.
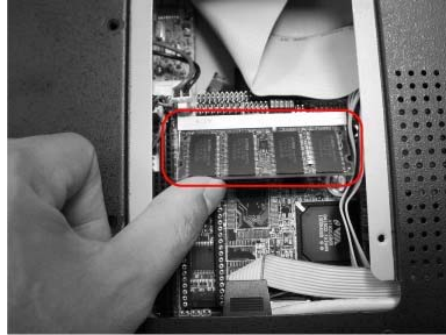
3.1 DRAM & HDD Installation

1. Ensure that all power supplies to the system are switched off.
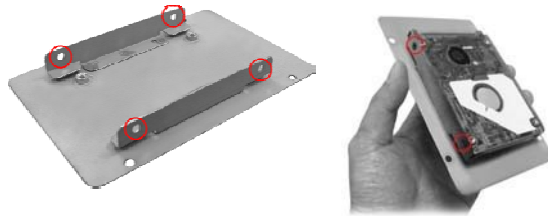
2. Please loose screws and open the back cover.
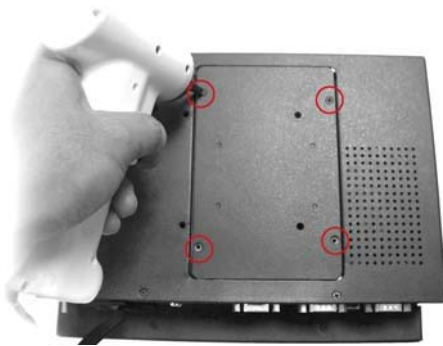
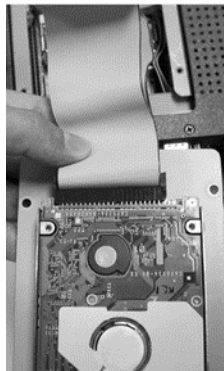3. Install the SO-DIMM module so that its gold pins point down into the SO-DIMM socket at a 45 degrees angle.

4. Secure the HDD with four screws (6#-32) on HDD tray.

5. Connector one end of the 44-pin IDE cable to the IDE connector on the drive. Match the red stripe on the cable with pin-1 on the IDE interface.

6. Reinstall the back cover and HDD to the chassis. Secure the back cover with the screws you earlier removed.
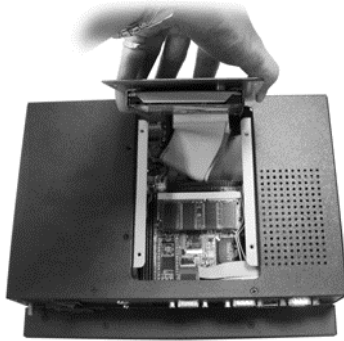
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Chapter 4

Touch Screen Driver Installation

This chapter illustrates the detailed information for touch screen driver installation procedures. The utility disk that came with the delivery package contains an auto-run program that invokes the installation programs for the touch screen driver. The following sections describe the installation procedures of driver based on WIN2000 operating systems. Other operation system may slightly different.

4.1   Touch Screen Driver Installation

4.1.1 Installing Touch Screen Driver in WIN95/98

1.   Insert Utility CD disk to your CD-ROM drive. The main menu will pop up as shown below.

2.   The screen displays copying "Installation Wizard" and "PenMount Utilities Installation" screen plus "welcome" message appear, click on **Next>**.
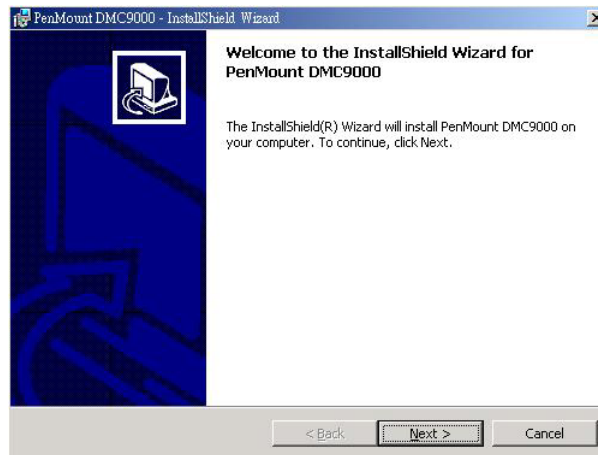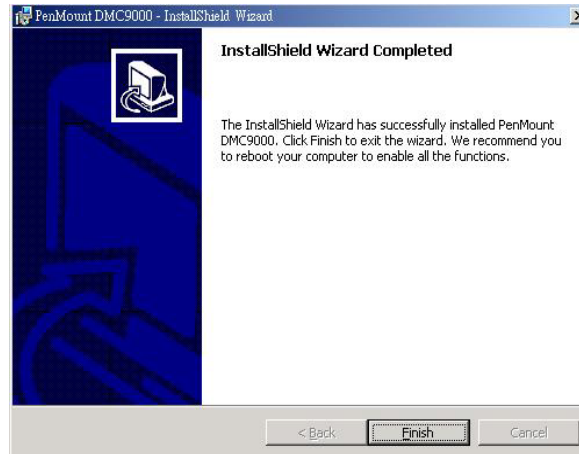
3. The next screen is "Software License Agreement", select "I accept" and click on **Next>**.
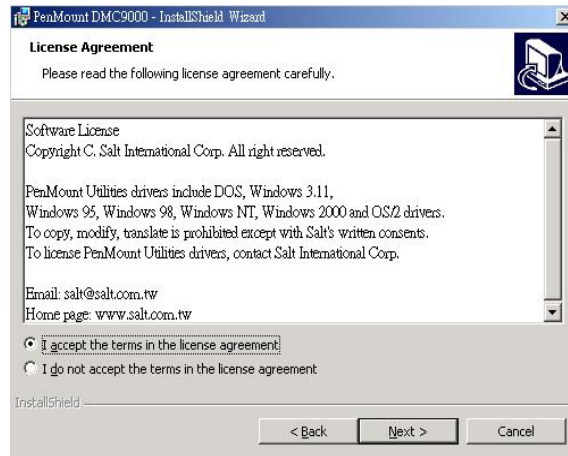
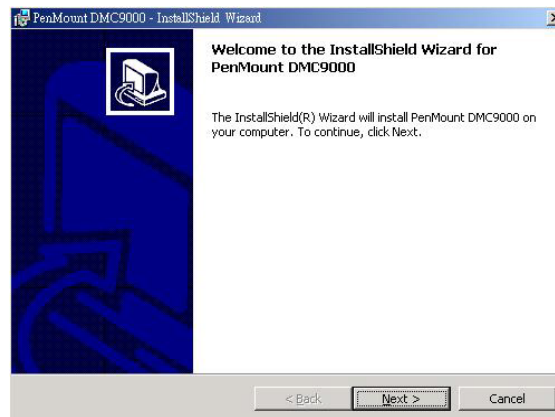4. The next screen is Ready to Install the Program, click on **Install**.
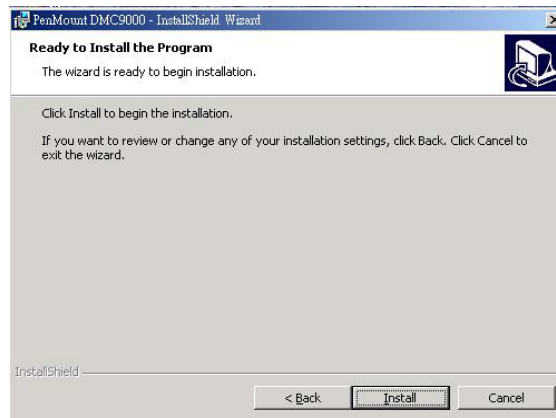
5. Once the Install Shield Wizard finishes updating your system, it will prompt you to restart the computer. Click on **Finish** to exit the wizard.
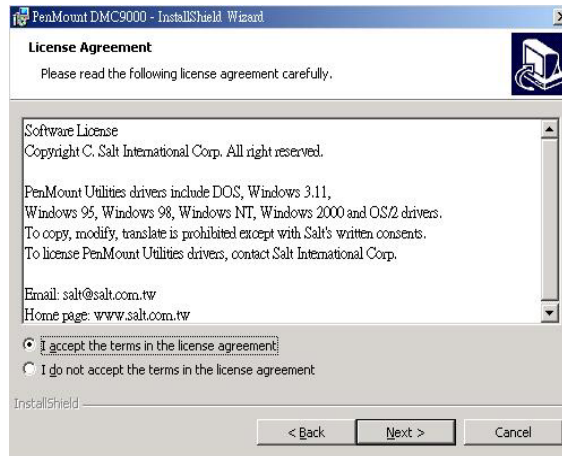

4.1.2 Installing Touch Screen Driver in WIN2000

1. Insert Utility CD Disk to your CD-ROM drive. The main menu will pop up as shown below.

2. The screen displays copying Installation Wizard and PenMount Utilities Installation screen plus welcome message appear, click on **Next>**.
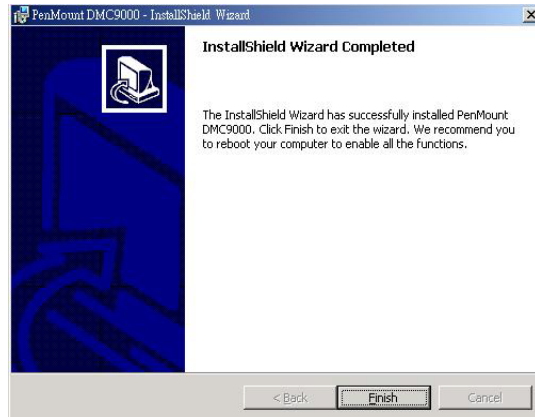
3. The next screen is Software License Agreement, select I accept and click on **Next>**.

4. The next screen is Ready to Install the Program, click on **Install**.
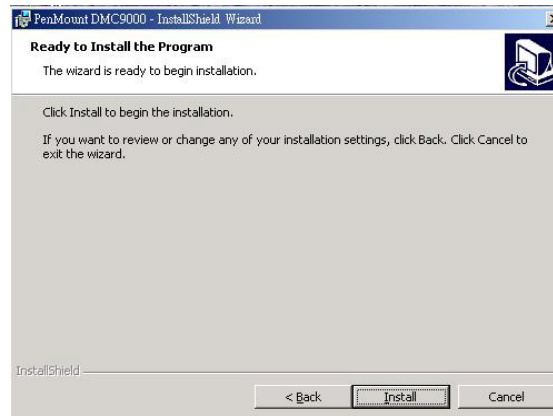
5. Once the Install Shield Wizard finishes updating your system, it will prompt you to restart the computer. Click on **Finish** to exit the wizard.
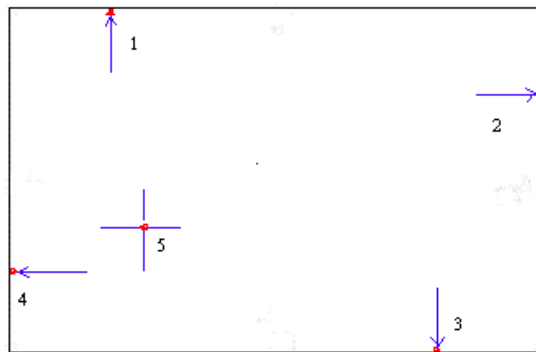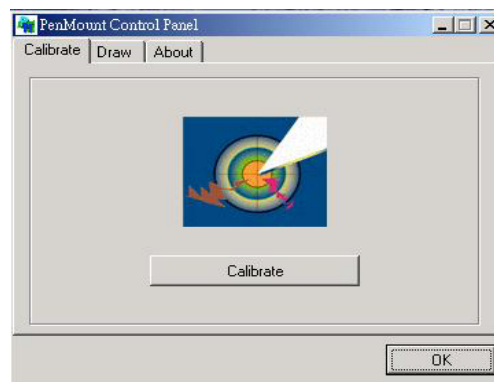
4.2　Driver Functions
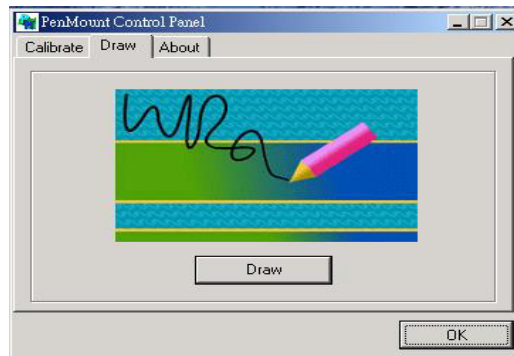
4.2.1　PenMount Control Panel

● **Calibrate**

To adjust the display with touch screen, click on "Calibrate" button and follow the calibrate point to do the calibration, there are five points on screen for calibration.

● **Draw**

Test or demonstrate PenMount touch screen operation, also the touch location is shown on the display, touch DRAW to start.

● **About**

It shows information about PenMount controller and driver version.

4.2.2 PenMount Monitor

The PenMount monitor icon is shown in the menu bar of Windows system when turn on PenMount monitor from PenMount Utilities.

There are several functions on PenMount monitor:

● **Control Panel**

When select this function, there is a mouse icon shown in the right-button place of screen. It shows Left Button being as default for normal use, change Right/Left button by clicking the mouse icon box. Blue area expresses what button has been selected or actived.

● **Right Button**

Change Right/Left button by clicking the mouse icon box. Blue area expresses what button has been or actived.

● **Beep**

Turn on or off beep sound.

● **Exit**

Close the PenMount Monitor function.

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