Touchbezel User Manual

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by

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PREFACE

Thank you for choosing our SAW touch products! This guide is the hardware installation manual of Leadingtouch touchbezel. We hope it will help you to make better use of our touchbezel.

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Components of touchbezel

According to the installation, there are the components and the accessories of Leadingtouch touchbezel.

Components:

- ✓ Touchbezel
- ✓ Control card(no card for infrared touchscreen)
- ✓ Cables

Accessories:

- ✓ M3 screws
- ✓ Dust-proof strips

Tools:

- ✓ Cross screwdriver, Flat screwdriver
- ✓ Diagonal cutting pliers, Sharp-nose pliers
- ✓ Knife, Scissors, etc.

Hardware Installation

Before Inastallation

Before your installation, please set the touchbezel horizontally and test to confirm it's in good function.

Cautions:

- ➢ For touchbezel assembly inside monitor:
 - \checkmark Make sure the front frame of monitor not press on touchbezel too tightly to cause deformation and defection .
 - \checkmark Make sure the surface on which touchbezel overlap is flat.

Touchbezel cable connection



For infrared touchbezel, as it has no control card, just connect the outlet cable to PC directly or with a extending cable, then it can works.

For 4W, 5W or SAW touchbezel, please follow below instructions to accomplish cable connection in touchbezel, control card and computer.

For Combo (dual 232 and USB) controller and cable



Dual Cable

232 extending cable



USB extending cable

For Combo Control card Serial cable connecting

- 1. Connect touch screen outlet cable to control card.
- 2. Plug connector cable to control card.
- 3. Connect serial extending cable DB9 male connector to DB9 female connector of dual connector cable.
- 4. Connect serial extending cable DB9 male connector to PC DB9 female port.
- 5. Connect dual connector cable power connector to 5V power supply
- 6. Connect dual connector cable GND connector to ground

Note: If touch screen outlet cable is not long enough, a extending cable may used between touch screen outlet cable and control card.

For Combo Control card USB cable connecting

- 1. Connect touch screen outlet cable to control card.
- 2. Plug dual connector cable to control card.
- 3. Connect USB extending cable male USB connector to female USB connector of dual connector cable.
- 4. Connect USB extending cable USB connector to PC USB port.
- 5. Connect dual connector cable power connector to 5V power supply
- 6. Connect dual connector cable GND connector to ground

Note: If touch screen outlet cable is not long enough, a extending cable may used between touch screen outlet cable and control card.

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ouch



For 232 control card and cable

- 1. Connect touch screen outlet cable to control card
- Plug 232 cable control card. 2.
- 3. Connect232 cable DB9 port to PC DB9 port.
- Connect 232 cable PS/2 male port to PC PS/2 female port. 5.
- 6. If your mouse is PS/2 interface and there is no port on PC to connector your mouse, connect PC mouse PS/2 male port to 232 cable PS/2 female port.

Note: If touch screen outlet cable is not long enough, a extending cable may used between touch screen outlet cable and control card.





For USB control card and cable

- $1 \cdot$ Connect touchbezel outlet cable to control card.
- 2 · Plug USB cable to control card
- 3. Connect USB cable USB port to PC USB port.

Note: If touch screen outlet cable is not long enough, a extending cable may used between touch screen outlet cable and control card.

Install touchbezel in LCD monitor

Disassemble LCD monitor

Before you install touchbezel in your LCD monitor, you have to disassemble monitor. Open the front and rear cover of the monitor by turning the screws on the rear cover, the switch circuit board and the LCD panel. The positions of the parts of the monitor are showed as below drawing.



Commonly, some reinforces are made inside the front cover, If they hinder the touchbezel from putting in or damage the reflective strips or connecting wires on the side of the touchbezel. You should cut them away with pliers. (After cutting, be sure to make the cut smooth by abrading, because the sharp cut may damage the connecting wires on the side of the touchbezel. If the space permits, the cut can be bonded with adhesive foam tape.)

Mount and shield controller

For infrared touchbezel, there is no control card, please skip to next step. For 4w, 5w or SAW touchbezel, in order to observe the working state of the controller, we suggest the controller is installed outside the monitor. However, for the sake of the beauty, the controller can be fix inside the monitor with screws or double-side adhesive tapes.



Connect cable

Connect and compliance all cables following instructions in previous part "Connecting Touchbezel Devices"

Signal cable need to put through rear cover, you have to find a suitable hole or cut a hole on the rear cover with cant pliers.

For infrared touchbezel, as it has no control card, just connect the outlet cable to PC directly or with a extending cable, then it can works.

For 4W, 5W or SAW touchbezel, please follow instructions in previous chap to accomplish cable connection in touchbezel, control card and computer.

LCD-PANEL reinforcement





LCD-PANEL (Rear)

The back of the monitor's back cover



28 ± 1.00 mm

- Φ12±1.00 mm

Stick dust-proof strips around LCD panel



Overlay touchbezel

Thoroughly clean the two surfaces of the touchbezel as well as the display area with the glass detergent. After cleaning, collimate and overlay touchbezel onto the display carefully



Fix touchbezel to monitor frames with screws.



Reassembly your LCD monitor



Remarks:

Because the touchbezel and the double-side adhesive foam tape are added between the display and the front cover, Some rubber washers should be added when installing the LCD, and then put the LCD into the front cover.

Installing Driver

Start installation

Double click setup.exe file to start installation. Firstly install resource kit for driver

10 Clabur	quiements:
Pending	Kernel Mode Driver Framework Version 1.7 Install Package(KB950051)

Choose a installation path, the default path is C:\Program files\Leadingtouch.

Click Ne	ext to install to this folder,	, or click Change to insta	l to a different fold	a C
0	Instal LeadingTouch D	viver for Windows to:		
	C:\Program Files Lead	ingTouch(Change

There are two setup type: complete and Custom. The default one is complete type.



After installation, double click LeadingTouchSetup on desktop to enter calibration program.



Introduction to driver setup and function

Touchbezel administration interface

	Please Select Langugae:	English 🔹
ouchScreen		
lease Choose	TouchScreen:	
N0.5(USB1)		

Language: can choose interface language, now has two choice Chinese and English language.

Touchbezel: All touchbezel can be recognized is shown in the box, choose the right one calibrate and click Setting(S) to continue your setting.

COM Port(P): For serial interface touchbezel, please select the right COM port for your touchbezel to continue setting(Note: COM interface touchbezel can't not be recognized autoly, user need to select COM port manually and click Add to add touchbezel into computer as following picture shows).

0				-
	Please Select Langugae:	English	1	
TouchScree	en			
Please Cho	ose TouchScreen:			
-	1			
ag (52.				
No.6(CON	41)			
No.6(CO)	91)			
No.6(CO)	91)			

Driver version information

Leading Touch
LeadingTouch TouchScreen Setup Program
Ver.6.00.0004 for Windows 2000/XP/2003/Vista
Support USB & COM interface
LeadingTouch Technology Co, Ltd.
Copyright 2006,2009
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(http://www.LeadingTouch.com)

Touchbezel setting



Calibrate: show monitor and resolution information recognized by system Identify: show monitor information to current touchbezel.

meb	Calibration Adjust Button function	Sound Information
ouchS	Calibrate Please select monitor wh	sed with touchscreens
No.3(Name: NVIDIA Quadro NVS 1- Resolution: 1440x900	ThinkPad Display
	Calibration type: ③ 4 Points ③ 9 Points ④ 9 Points	

Custom: to define custom calibration area by changing drag Left-Top and Right-Bottom coordinate to set calibration area.

eft-Top Coordina	ite	Rihgt-Bottom Coordinate		
Please darg the ico to setting coordinate,or input coordinate direct.		Please darg the ico to setting coordinate,or input coordinate direct		
8			8	
X Axis	294	X Axis	858	
Y Axis	281	Y Axis	551	

4 points calibration: calibrate by 4 points, for SAW and SAW touchbezels.

9 points calibration: calibrate by 9 points, for 4W, 5W and capacitive touchbezel. 25 points calibration: calibrate by 25 points, for 4W, 5W and capacitive touchbezel. Select 4 points, 9 points, 25 points or custom and click calibrate to start calibration.



Press the center of red point for about 2-3 seconds. Don't release your finger until the red point shaft to next position or hearing beep sound. Repeat for all red point to finish calibration.

After calibration, you can choose:

Recalibrate: If mouse cursor can't overlap with your touch finger, please select this item to calibrate touchbezel again.

DrawLine: Select to enter draw-line test, for more details refer to next chapter

Touchbezel setting- Adjust

alibration	Adjust	Button	Function	Sound	Information
Border A	djust				
No.	05		0	=	0%
	T I				
0%	0				0%
				_	38
Touch Me	da		-0		0%
TOUCH MU	Please	e Set To	uch Mode:		
E	Norm	al			•
Normal m User can object.	ust Click Click Click Click	On Touc On Rele On Touc On Rele	:h ase :h No Move ase No Mo	s ve	use move. ing the

Border adjust: adjustbezel border scale border to fit current touchbezel, as touchbezel may have abnormal action caused by installation or non-linear problem. Touch mode:

Click On Touch: indicates the response when your finger touches on the panel Click On Release: indicates the response when your finger leaves the touchs panel Click On Touch No Move: indicates the response when your finger touches on the panel, can't draw line and drag

Click On Release No Move: indicates the response when your finger leaves the panel, can't draw line and drag

Touchbezel setting-Buttom

Calibration	Adjust	Button	Function	Sound	Information	2
Button Sv	witch					
-	Please	Set But	ton Switch	Mode:		
9	0	V Enable	e Auto Rigi	nt Button	Switch	
Auto	Range		0		10 MN	1
Auto	Time	. 0			- 1000 Ms	ec
· · · · · ·						
Explain:	Click 9 switch	SwitchTo button o	ol,when ho moe.	ld touch	a while, auto	6
Explain:	Click 9 switch Please is only	SwitchTo button o use Swi input or	ol, when ho moe. itch Tool to arameter!	ld touch switch t	a while,auto outton,there	
	Click Switch Please is only	SwitchTo button o use Swi input pa	ol,when ho moe. itch Tool to srameter!	ld touch switch t	a while,auto outton,there	
Double C	Click Setti	SwitchTo button c use Swi input pa ing	ol,when ho once. itch Tool to srameter!	ld touch switch t	a while,auto outton,there	
Double C	Click Switch Please is only Click Setti Range	SwitchTo button c use Swi input pa ing	ol,when ho proe. itch Tool to arameter!	ld touch	a while,auto outton,there 30 Pix	cel

[Button Switch]: Enable Auto Right Button Switch

Auto range: Click effectual in 10mm area

Auto time: Click effectual in 1000mMsec

Auto right button effects only when above two items effectual.

[Double Click Setting]:

Range: Clicks in range of 10 mm are determined to be a touch point

Time: Clicks in 500 msec are determined to be a touch point

If any icon or program can't open normally, please drag the two rules above to right side a little.

Touchbezel setting-Advanced

Calibration	Adjust	Button	Function	Sound	Inform	nation
	🔽 Enat	ole Touc	1			
Advanced	d Functio	n				
Enabl	e Const	Touch Fu	inction			
Ra	nge		0		10	мм
🕅 Eanbl	e Line Ci	ontinue f	unction			
Ra	nge	-	0		20	ММ
Tin	ne	-	0		100	Msec
🔳 Enabl	e Line Sr	mooth Fu	inction			
Ra	nge	0-			15	мм
Poi	ints	nin L	0		5	Point

[Enable Touch]: Enable or disable touch function of touch panel
[Advanced Function]:
Enable Const Touch Function: The range of 10 mm are determined to be a touch point
Enable Line Continue Function: Settings for handwriting input or drawing.
Range: Disconnected line in range of 20mm will be amended by algorithm
Time: Disconnected line in range of 100msec will be amended by algorithm
Enable Line Smooth Function: Line can be smoothed by algorithm to insert 5points in
15mm range

Touchbezel setting-Sound

Calibration	Adjust	Button	Function	Sound	Information
Touch So	und				
Веер	On Touc	h			
Fr	equency	. Je		0	- 3000 HZ
D	uration	0			- 50 Msec
Release :	Sound				
Beep	On Relea	ase			
Fr.	equency	-0-			- 600 HZ
D	uration	0—			S0 Msec
	6	OK(0)		Jancel(C) Apply(A

Beep on touch the speaker on the computer will generate voice when touch on the touchbezel

Beep on release the speaker on the computer will generate voice when leave off the touchbezel

Touchbezel setting-Information

Screen I	nformation
ų	Model:
	Select(S) Custom(U)
Â	Touch screen model, used to calculate the size of monitor. Default value according to 17(inch) screen. If screen size greater than 19(inch), or less than 15(inch), please select correct screen model.
Control	Card Information
-	Model:
	LeadingTouch USB Compatible Device
	Protoc
	Flotoes

[Bezel information]

Select: Click to select current touch panel size and model to amending function if mouse cursor not overlap with your finger after calibration. Default size is from 3.5inch to 42 inch

Custom: Click to input a custom touch panel size

[Control Card information]

Indicate Control Card information

Uninstall Leadingtouch drivers

Enter Touchbezel Uninstall program through the following programmer 1 Click "Start"----"programmer"----"Leadingtouch" ----"Uninstall"

🛗 LeadingTouch	🕨 🅜 SwitchTool
(🛃 TouchSetup
	1 Uninstall

2 Open control panel and select "Leadingtouch Driver for Window" ---- "delete"

Statian and a state of the stat	NHFF			
	当前安 英 的程序:	显示至¥(11)	排印方式(S): 名約	×
	◎ LeadingTeach Driver for Tindows <u>单元让刘泽语女持信息。</u>		大小 己砚用 - 200月 日期 - 3	9.7370 22 109 4-22
适同和 试证值(0)	费更级此程序或将它以计算机删除,单击"差碳"或"删除"。		9 59.	HURR
	McAfes AntiSpyvars Enterprize Moduls		大小	45 84MB
	Nakfee VirneScan Enterprise		大小	45.44MB
	Just Microsoft . NET Compact Preseveric 1.0 SPS Developer		大小	9.87MB
	Jun Microsoft . JEF Compact Promework 2.0		大小	59.27MB
	With Margarath With Kennessek 9.11		-+• A.	

3. Run setup program and select "uninstall".

FAQ

Q: Touchbezel no reaction. LED on control card is constantly on for 3 seconds, then snuff out and be constantly on during touch.

A: Phenomenon below indicates touchbezel and control card are in good condition, you can find out problem as below method.

1: if right driver is installed.

- 2: If COM port selected in program is the right one in use.
- 3 : If Jumper on control card meet current driver.
- 4 : If COM port of computer can work normally.
- 5 : If computer COM port is in use by other device.
- 6 : If there is any mistake information from operating system.
- Solution:
- 1: Install a right driver
- 2 : Set program COM port as the one in use. 3 : Install a right driver. For jumpers and
- driver corresponding relationship please refer to Jumper setting description.
- 4 : Inspect if Serial or USB port is open in mainboard bios file, if there is any hardware

problem(can inspect by serial or USB interface mouth).

5 : Change to another serial port or uninstall other device.

6 : Change another host or re-install operating system.

Q Touch no action and LED constantly on.

A This indicate touchbezel and control card are not in good preparation, please check following below steps

1 : If space in monitor or cabinet for touchbezel is enough, transducers on touchbezel

may be crushed.

- 2: If protected film is tear off
- 3 : If reflection texture in touchbezel is dirty.

4 : If adopts wrong dust-proof strips or assemble it too tight.

- 5 : If Control card temperature is too high.
- 6 : If 12pin cable, signal cable on touchbezel, or control card is broken.

Solution

- 1 : Change another monitor, cabinet or touchbezel.
- 2: Tear off protected film
- 3 : Clean touchbezel
- 4 : Adopts right dust-proof strips and assemble them not too tight.
- 5 : Remove control card to ventilated environment
- 6 : Change another touchbezel or control card.

Q Touch no reaction, LED flickers.

A That indicate a communication mistake between touchbezel and control card. Please settle it as following steps

- 1 : Check if power supply for control card is unstable.
- 2 : Check if there is water or other dirty on touchbezel.
- 3 : Check if cable connected to touchbezel and control card is loosing.
- 4 : Check if touchbezel and control card is broken.

Solution :

- 1 : Change another host or adopt a stable power.
- 2 : Clean touchbezel and restart computer.
- 3 : Re-connect touchbezel and control card.
- 4 : Change another touchbezel or control card

Q Touch no reaction, LED is off constantly.

A That indicate there is no current through control card. Please check as following steps.

1 : Check if 232 or USB cable is not in good condition or connection.

- 2 : Check if power cable is not in good condition.
- 3 : Check if control card is not in good condition.

Solution

- 1 : Re-connect cable or change another cable
- 2 : Change another power cable
- 3 : Change another control card

Q Cursor not move with finger, has deviation. A This is caused by inaccurate calibration, please check according to following directions.

- 1 : Check if calibrate touchbezel uncorrectly.
- 2: Check if changed resolution without re-calibration
- 3 : Check if jumper setting on control card meets current driver
- 4 : Check if touchbezel is dirty
- 5: Check if control card temperature is too high to work normal, and if there is influence

from other high frequency device.

6 : Check if touchbezel and control card is in good condition

Solution

1 : Redo calibration test, be sure let your finger overlap with red circle center in

calibration

- 2 : Redo calibration test
- 3 : Setup right jumper and driver and redo calibration
- 4 : Clean touchbezel
- 5 : Remove control card to low temperature and influence place
- 6 : Change another touchbezel or control card

Q: Cursor jump all around during touch, LED flickerssA: The phenomenon seldom happen, you can follow below steps to solve it.

1 : Check if use unqualified dust-proof strips to crush touchbezel reflection texture too

tightly

2: Check if there is water or other contamination on touchbezel surface.

3: Check if control card temperature is too high to work normal, and if there is influence

from other high frequency device.

- 4 : Check if control card power supply is unstable
- 5 : Check if touchbezel or control card is defective

Solution

- 1: Use qualified drst-proof strips and don't assemble it too tight
- 2 : Clean touchbezel
- 3 : Remove control card to low temperature and influence place
- 4 : Change another host or provide a stable power supply
- 5: Change another touchbezel or control card

Q: Cursoer can't move, LED flickerss

A: This usually caused by software mistakes, please solve it as following instructions

1 : Check if calibrate uncorrectly

2 : Check if jumper setting on control card meets current driver

3 : Check if there is water or other contamination on touchbezel surface, or host is hang

over

4 : Check if adopt unqualified dust-proof strips or assemble touchbezel uncorrectly.

Solution:

1 : Redo calibration

2 : Make certain driver is correct installed and redo calibration

3 : Clean touchbezel and restart computer

4 : Adopt qualified dust-proof strips and assemble it not too tight

Q: A band area inbezel is no touch action or must touch with great stress.

A: That is a signal attenuation phenomenon in that area, may caused by improper assembly or dust.

1 Check if touchbezel and monitor front frame is separated by our dust-proof strips

2 Check if there is dust accumulated on touchbezel reflection texture

3 Check if touchbezel assembly is too tight to transmit signal Solution

1 Adopt our dust-proof strips to separate touchbezel and monitor front frame

2 Clean touchbezel reflection textrue

3 Loosing touchbezel and monitor front frame