

# **POS310/312 with B46 M/B Installation Guide**



POS 310(Black/White)



POS312(Black/White)

## **Point-of-Sale Hardware System**

# Safety

## IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions carefully. Keep these instructions for future reference.
- Follow all warnings and instructions marked on the product.
- Do not use this product near water.
- Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
- This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
- Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

## FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

This device may not cause harmful interference.

This device must accept any interference received, including interference that may cause undesired operation.

### Caution on Lithium Batteries

Danger will explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

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# 1. Accessory



AC Adapter



Power Cord



Driver Bank



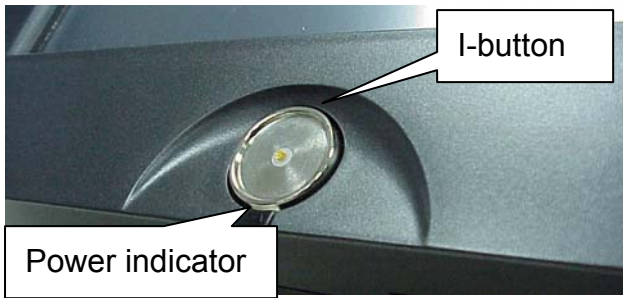
Warranty Card

Folder/File	File Description
<CD>:\B46\B46.htm	B46 Driver list
<CD>:\B46\VIA4IN1	Chipset driver
<CD>:\B46\Audio\V4.50b	Audio driver
<CD>:\Common\LAN_drive\ R8139_810x	LAN driver
<CD>:\Common\MION_Touch	Touch driver

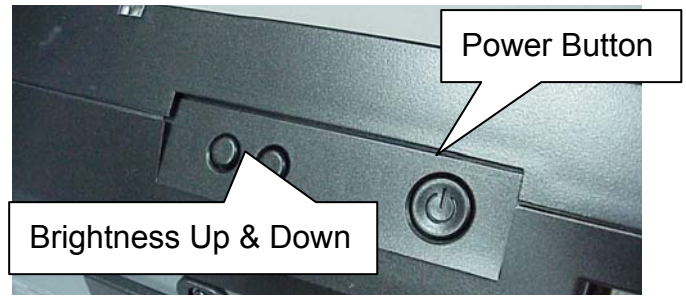
# 2.I/O Function

(Note: POS312 without I-button function)

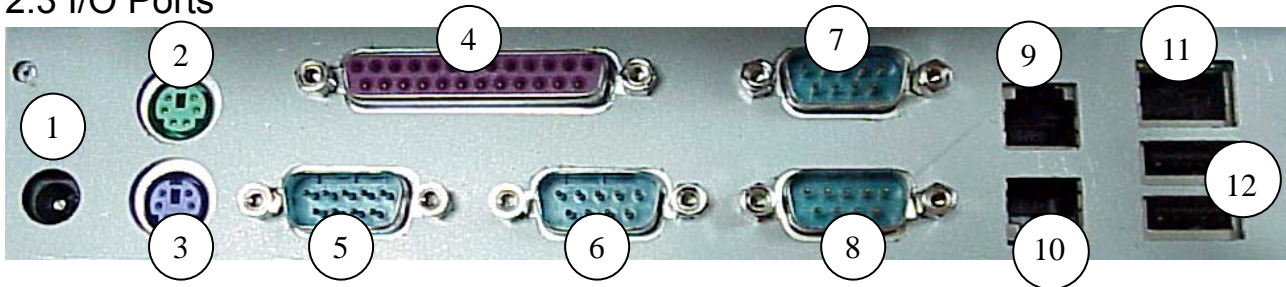
## 2.1 Front View



## 2.2 Bottom View



## 2.3 I/O Ports



#	Function	#	Function	#	Function	#	Function
1	DC 19V IN	4	LPT	7	COM4	10	DIO1
2	PS/2 Mouse	5	COM1	8	COM3	11	LAN
3	PS/2 Keyboard	6	COM2	9	DIO2	12	USB 1 & 2

## 2.4 Side View



Another PS/2 keyboard port

### 3. Specification

Item		Description
Main Board		B46
CPU		VIA Eden ESP4K/6K/7K
Core Logic		VIA VT8606 + VT686B
LCD size	POS310	10" DSTN-LCD Anti-glare
	POS312	10.4" TFT LCD
Brightness	POS310	70~100cd/m <sup>2</sup>
	POS312	150 cd/m <sup>2</sup>
Display Function		(built-in) on NS-CS5530
Compact Flash		(Secondary/IDE)Type 1, Socket supported
HDD		(Primary/IDE)Internal Slim type 44pin header (optional)
RAM		On-board 128MB, 1 x S.O.-DIMM up to 256MB
Resolution		800 x 600
Touch Screen		4 Wire Resistive type (Miontec )
Touch Panel		Miontec 4 Wire (COM5)
Serial Port		6, Pin 1/9 with +5V/+12V, COM4 for Card Reader, COM5 for Touch Screen, COM6 for Customer Display
Cash Drawer		2(with 12V/24V Output, MAX 24V≤2A)
LPT		1
USB		2(V1.1)
PS2		Keyboard x 1, Mouse x 1
LAN		1, (10/100 Base-T), RTL-8100 Chipset
Audio		Line Out, System Speaker support (LCD Function Board)
Magnetic Card Reader		3 Tracks, Keyboard or RS232 type (COM4) (Optional)
Customer Display		LED type, (COM6) (Optional)
Programmable Keypad		32 keys with key lock, Smart IC Card Reader (Optional)
Dallars Key		i-Button Key Reader (Keyboard type, Optional)
Expansion Slot		Mini PCI Socket
OS support		Windows CE/ 98/ 2000/ XP, Linux
Power Supply		AC Adapter: Input 100 ~ 240V, Output 19V/90W Safety: UL, CUL. TUV, CB, CSA
Spill-proof		Touch Screen Panel
M/B Dimensions		200mm(W) x 185mm(D) x 25mm(H)
Temperature		5°C~ 35°C, operating
EMI		FCC/CE Class B, VCCI

# 4. Install External Device

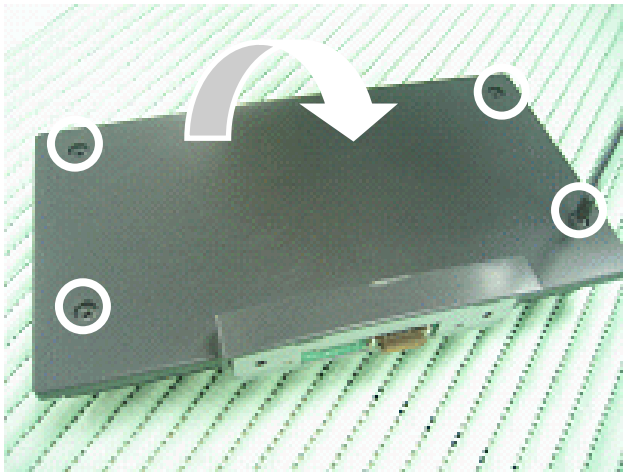
## 4.1 Install Programmable Keypad



a. Turn over the system before installing the keypad.



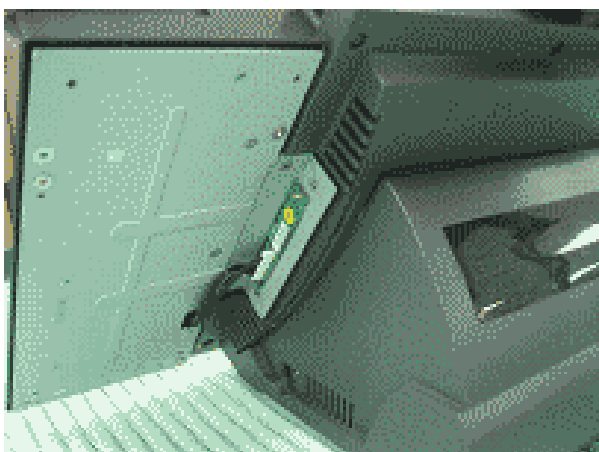
b. Loosen the two screws at the side of the system and remove the keypad cover.



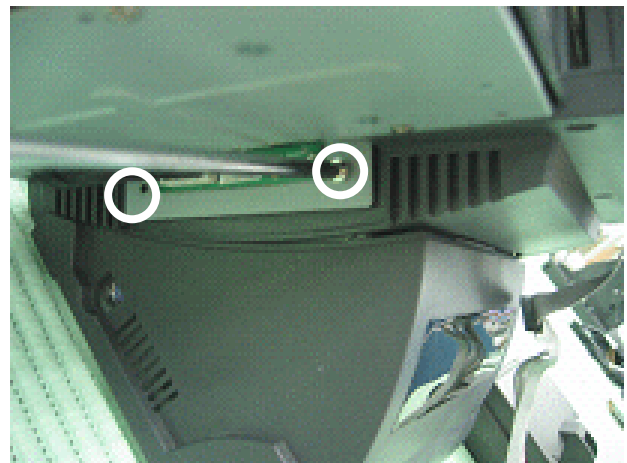
c. Turn over the keypad and loosen the back cover four screws.



d. Take off the back cover.



e. Attach the keypad to the side of the system.



f. Tighten the two screws so the keypad can be fully connected to the system.



g. Recover the back cover of the keypad.



h. Attach the keypad to the side of the system and tighten the four screws around the back cover.



i. Now the keypad is fully installed.



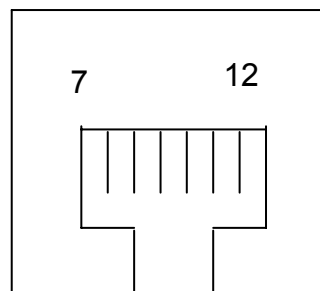
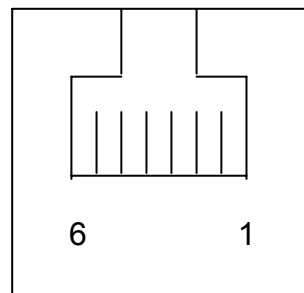
## 4.2 Install Cash Drawer



You can install a cash drawer through the cash drawer port. Please confirm the pin assignment before installation.

### 4.2.1 Cash Drawer Pin Assignment

Pin	Signal	Pin	Signal
1	GND	7	GND
2	DOUT bit0	8	DOUT bit2
3	DIN bit0	9	DIN bit2
4	12V/24V	10	12V/24V
5	DOUT bit1	11	DOUT bit3
6	GND	12	GND



## 4.2.2 Cash Drawer Controller register description

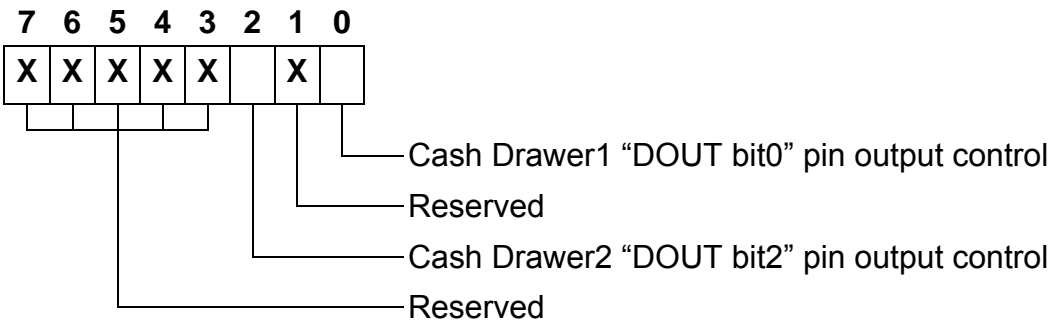
The Cash Drawer Controller use two I/O addresses to control Cash Drawer –Cash Drawer Control Register and Cash Drawer Status Register.

### 4.2.2.1 Cash Drawer Control Register

Register Location: I/O port 206h

Attribute: Write

Size: 8bit



Bit 7-3: Reserved

Bit 2: Cash Drawer2 "DOUT bit2" pin output control.

= 1: Opening the Cash Drawer 2

= 0: Allow close the Cash Drawer 2

Bit 1: Reserved

Bit 0: Cash Drawer1 "DOUT bit0" pin output control.

= 1: Opening the Cash Drawer 1

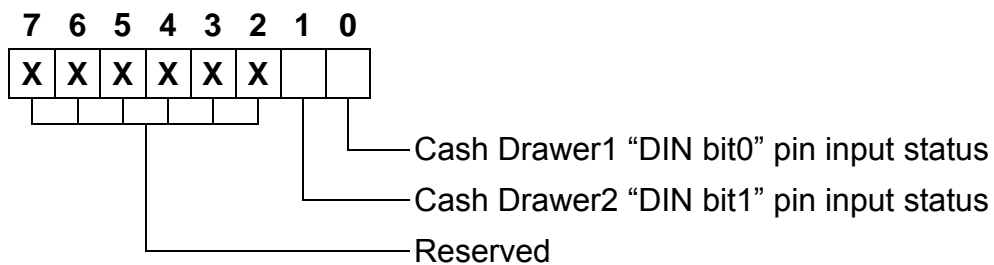
= 0: Allow close the Cash Drawer 1

#### 4.2.2.2 Cash Drawer Status Register

Register Location: I/O port 206h

Attribute: Read

Size: 8bit



Bit 7-2: Reserved

Bit 1: Cash Drawer2 "DIN bit1" pin input status.

= 1: the Cash Drawer2 opened or not exist.

= 0: the Cash Drawer2 closed.

Bit 0: Cash Drawer1 "DIN bit0" pin input status.

= 1: the Cash Drawer1 opened or not exist.

= 0: the Cash Drawer1 closed.

### 4.2.3Cash Drawer control command example

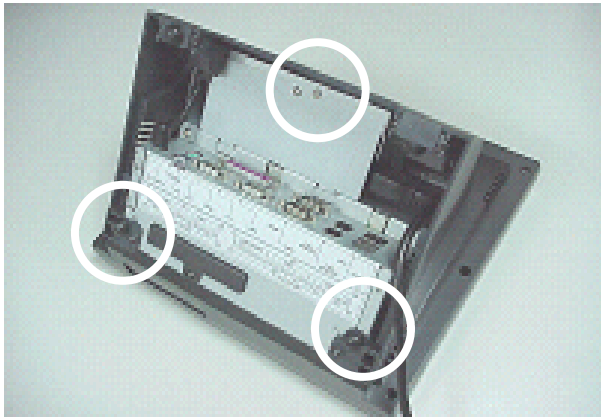
Use Debug.EXE program under DOS or Windows98

Command	Cash Drawer 1
O 206 01	Opening
O 206 00	Allow to close
<ul style="list-style-type: none"><li>➤ Set the I/O address 206h bit0 =1 for opening Cash Drawer1 by “DOUT bit0” pin control.</li><li>➤ Set the I/O address 206h bit0 =0 for allow close Cash Drawer1.</li></ul>	

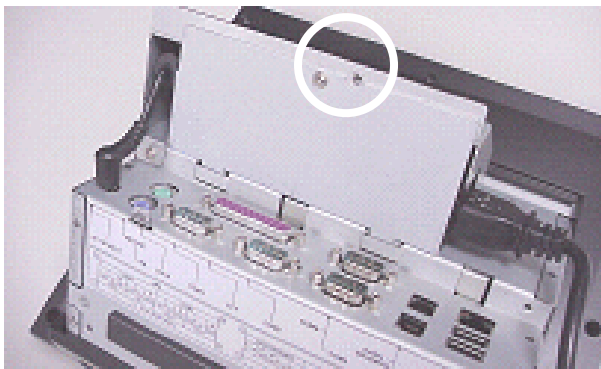
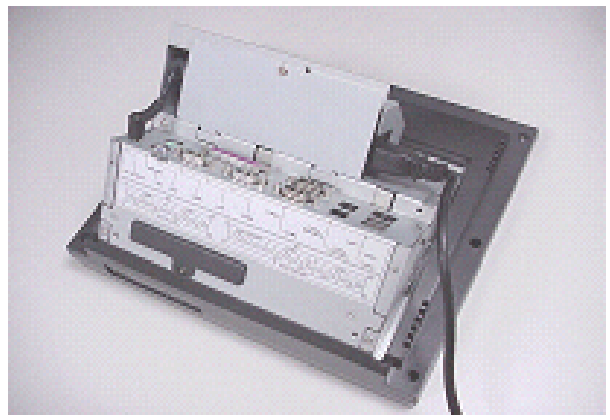
Command	Cash Drawer 2
O 206 04	Opening
O 206 00	Allow to close
<ul style="list-style-type: none"><li>➤ Set the I/O address 206h bit2 =1 for opening Cash Drawer2 by “DOUT bit2” pin control.</li><li>➤ Set the I/O address 206h bit2 =0 for allow close Cash Drawer2.</li></ul>	

Command	Cash Drawer
I 206	Check status
<ul style="list-style-type: none"><li>➤ The I/O address 206h bit0 =1 mean the Cash Drawer1 is opened or not exist.</li><li>➤ The I/O address 206h bit0 =0 mean the Cash Drawer1 is closed.</li><li>➤ The I/O address 206h bit1 =1 mean the Cash Drawer2 is opened or not exist.</li><li>➤ The I/O address 206h bit1 =0 mean the Cash Drawer2 is closed.</li></ul>	

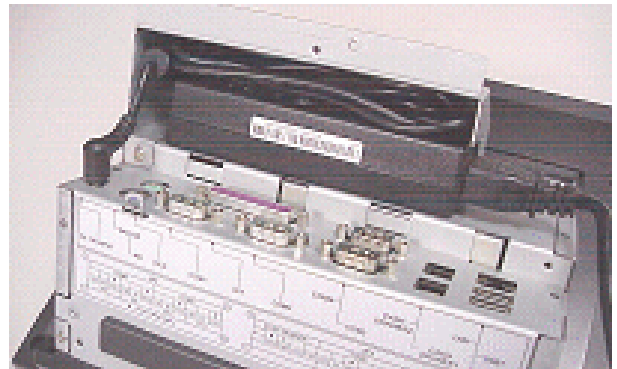
# 5. Disassemble Procedures



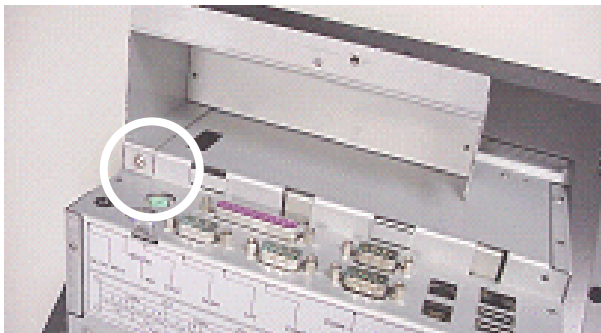
a. Turn over the system and remove the stand by loosening the three screws.



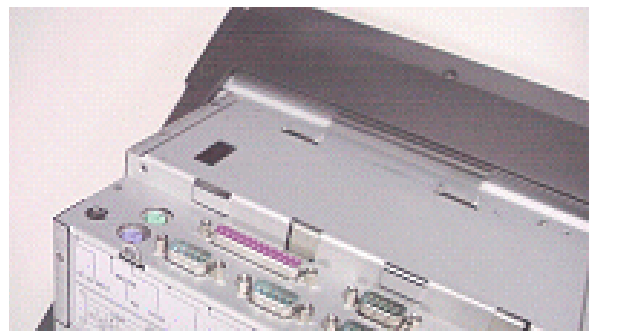
b. Loosen the screw fastening the power cover and the power bracket.



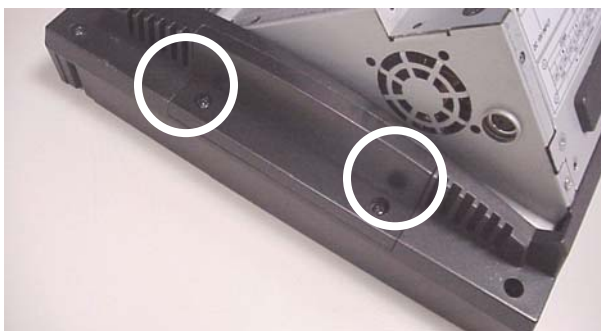
c. Remove the power supply.



d. Loosen the screw fastening the power bracket and the base chassis.



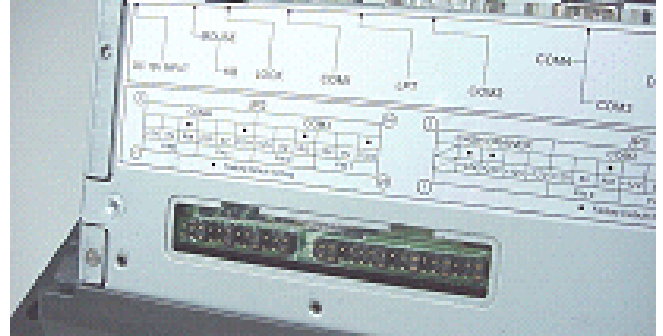
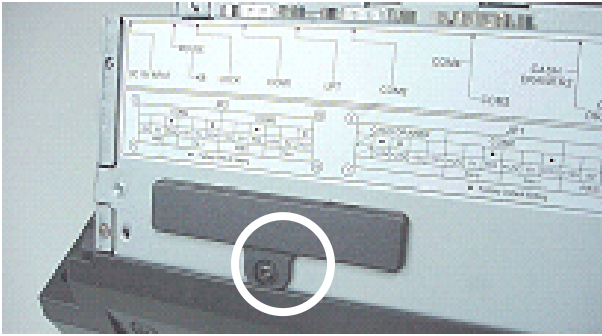
e. Remove the power bracket.



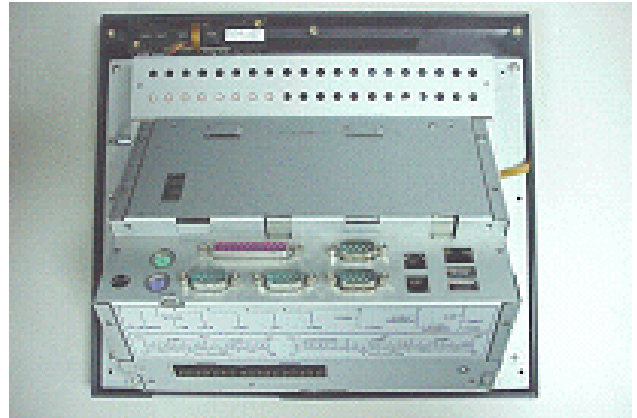
f. Loosen the two screws fastening the keypad cover.



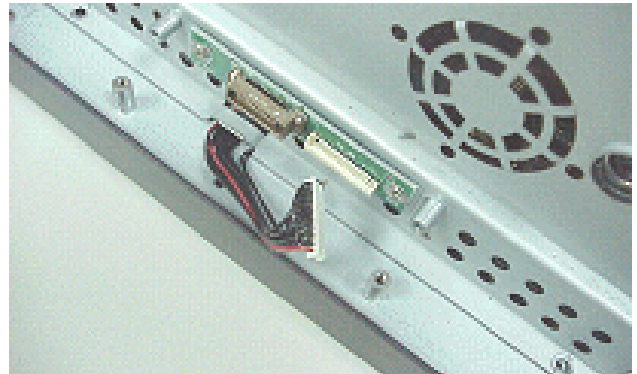
g. Remove the keypad cover and loosen the screw fastening the LCD panel rear cover and LCD panel.



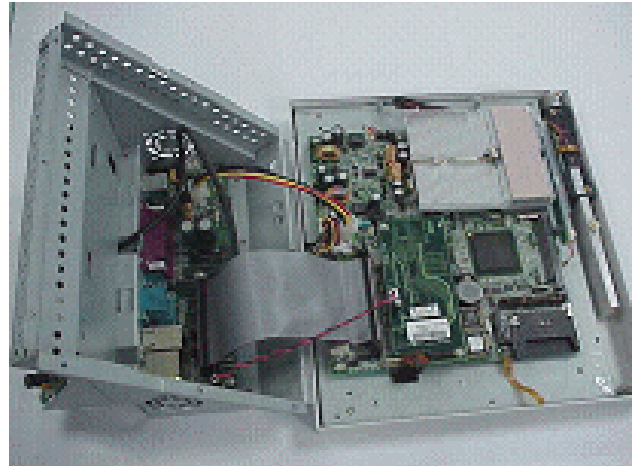
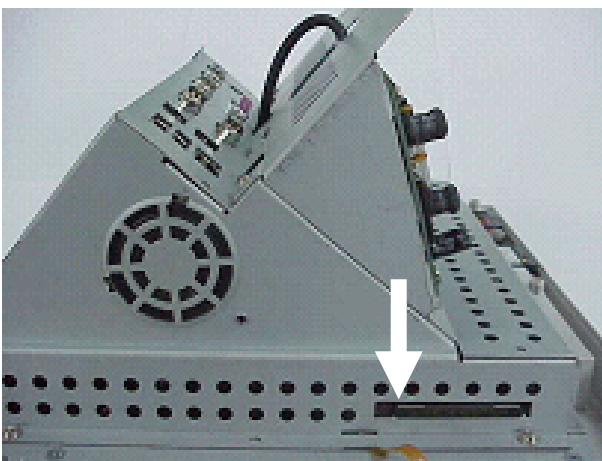
h. Loosen the screw fastening the jumper setting cover and the base chassis to remove it.



i. Loosen the screws fastening the LCD panel rear cover and the panel to remove it.

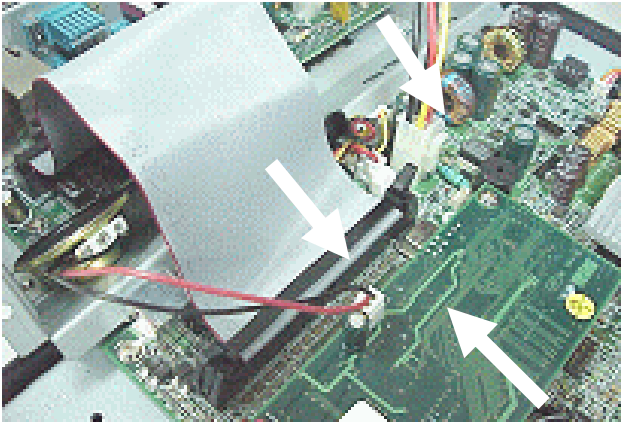


j. Disconnect the keypad cable

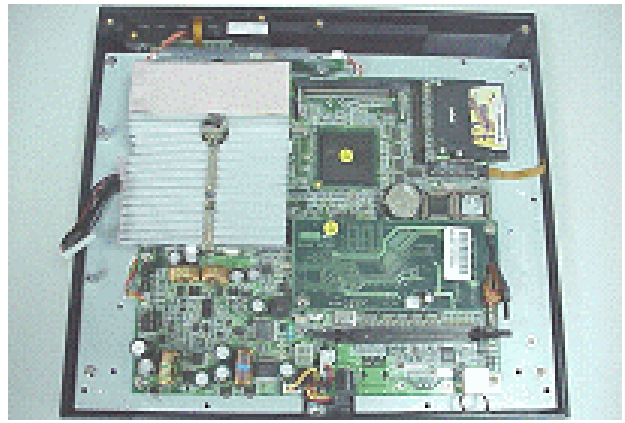


k. Press the button to remove the CF card.

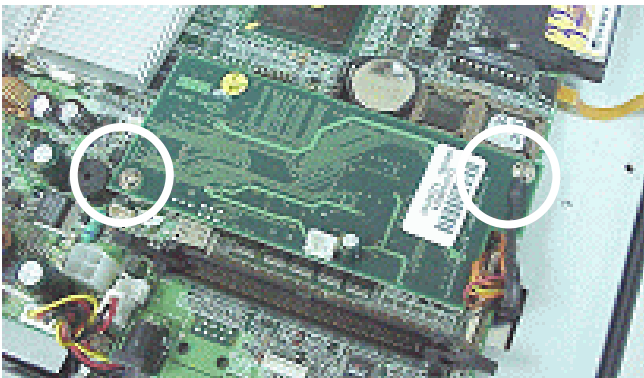
l. Lift the base chassis.



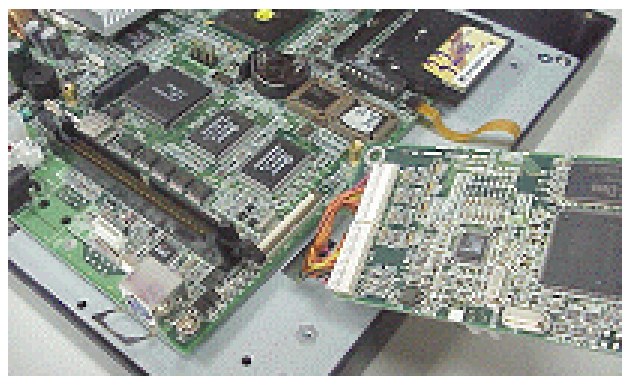
m. Disconnect the connector board cable, audio cable and the connector board power cable.



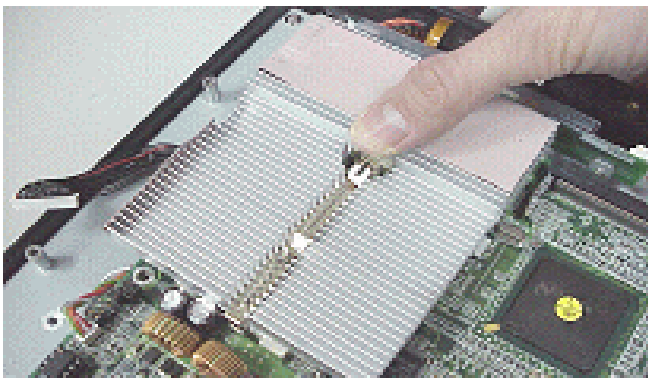
n. Loosen the screws fastening the motherboard and the LCD panel.



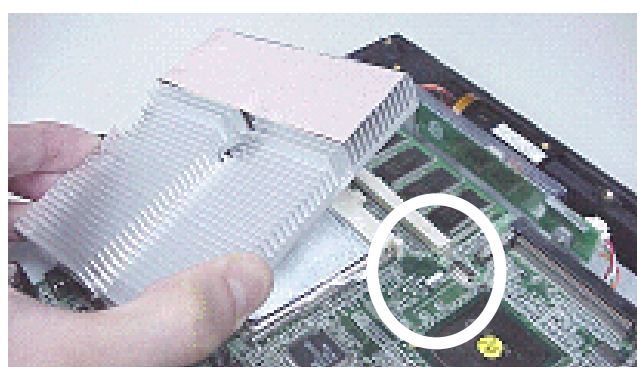
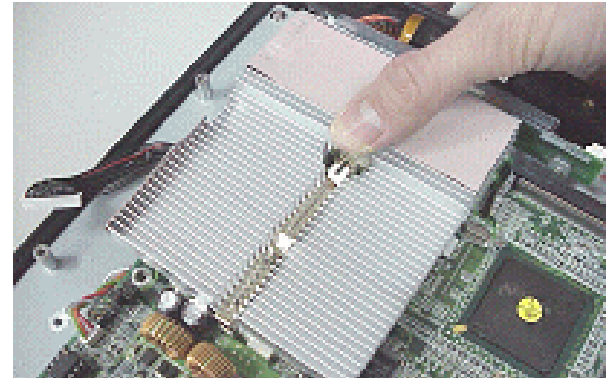
o. Loosen the two screws fastening the motherboard and the bridge board.



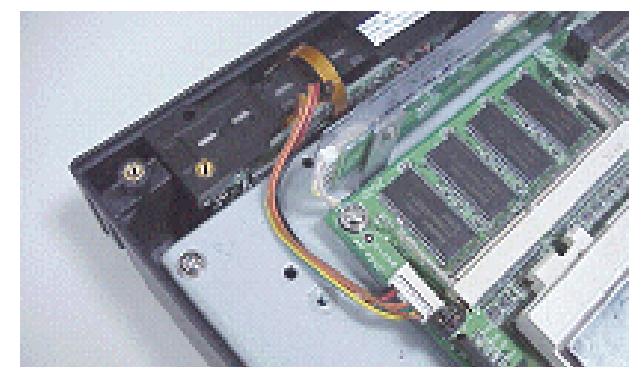
p. Lift the bridge board and disconnect the panel signal cable.



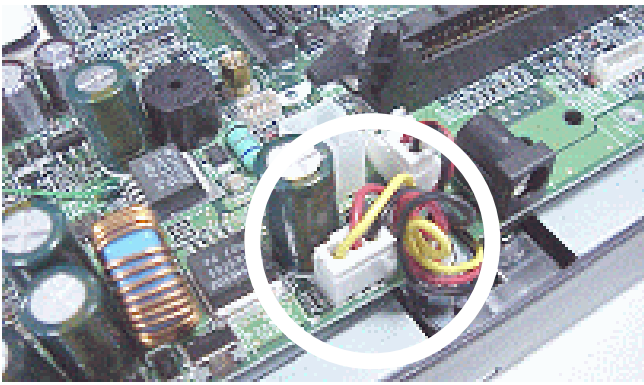
q. Press the heat sink clip and lift it.



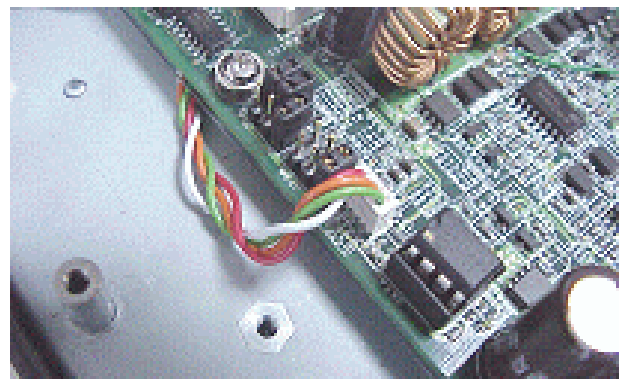
r. Remove the heatsink.



s. Disconnect the card reader cable.



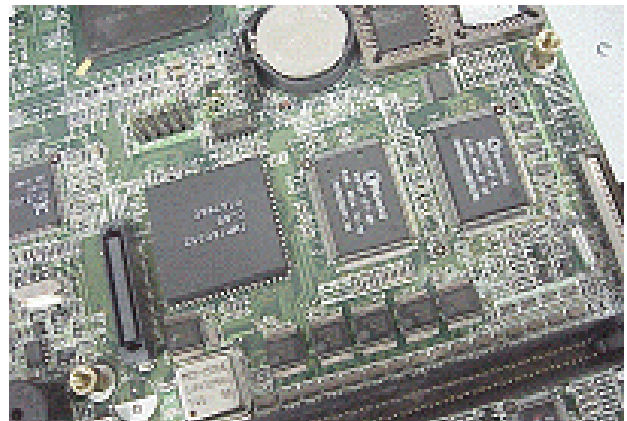
t. Disconnect the I-button and the LED cable.



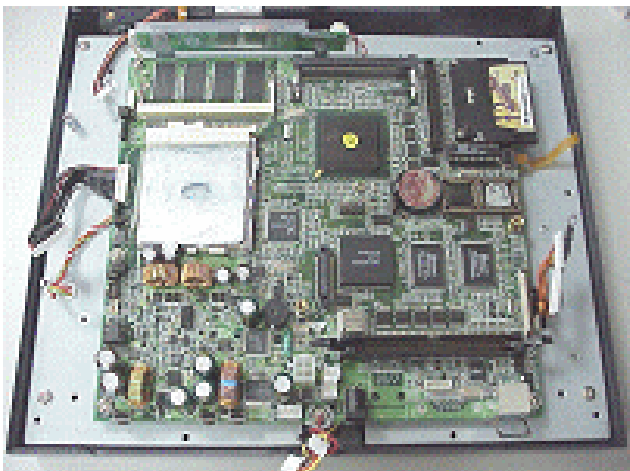
u. Disconnect the inverter cable.



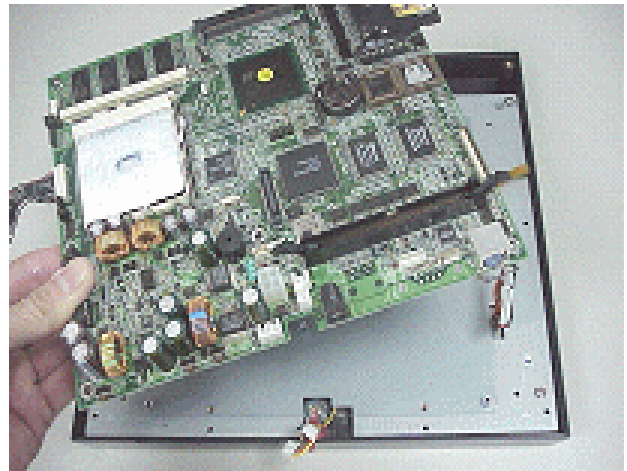
v. Disconnect the touch panel cable.



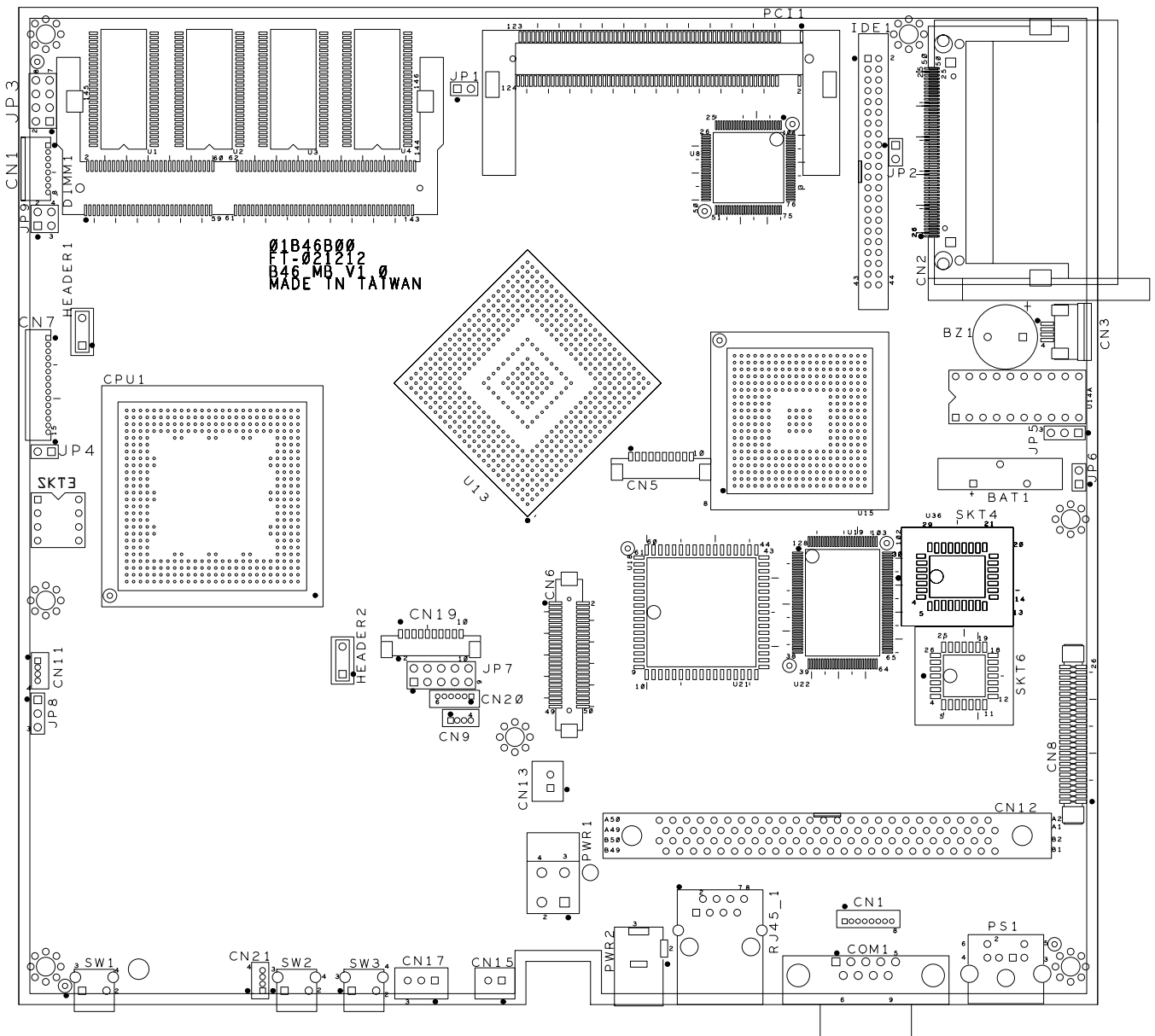
w. Disconnect the two hexagonal screws.



x. Loosen the screws fastening the motherboard and the LCD panel and remove it..







## 6. Jumper Setting

### 6.1 Main Board Jumper Setting

#### 6.1.1 I-button Selection

Function	JP1
Yes	SHORT
No	OPEN

#### 6.1.2 Compact Flash Card Selection

Function	JP2
SECONDARY SLAVE	OPEN
SECONDARY MASTER	SHORT

### 6.1.3 Panel Type Selection

Function	JP3			
	1-2	3-4	5-6	7-8
DSTN	OPEN	SHORT	OPEN	SHORT
TFT	OPEN	SHORT	SHORT	OPEN
TFT LVDS	OPEN	SHORT	SHORT	SHORT

### 6.1.4 CMOS Clear Selection

\* Factory Default Setting

Function	JP5 (SHORT)
* Normal	1-2
Clear	2-3

### 6.1.5 DIO Address Selection

\* Factory Default Setting

Function	JP6
* 206H	OPEN
386H	SHORT

### 6.1.6 Panel Brightness Selection

Function	JP8 (SHORT)
TFT	1-2
DSTN	2-3

### 6.1.7 PS2 Card Reader Selection(Add-on Card Reader or not)

Function	JP9	
	1-2	3-4
No	SHORT	SHORT
Yes	OPEN	OPEN

Note:

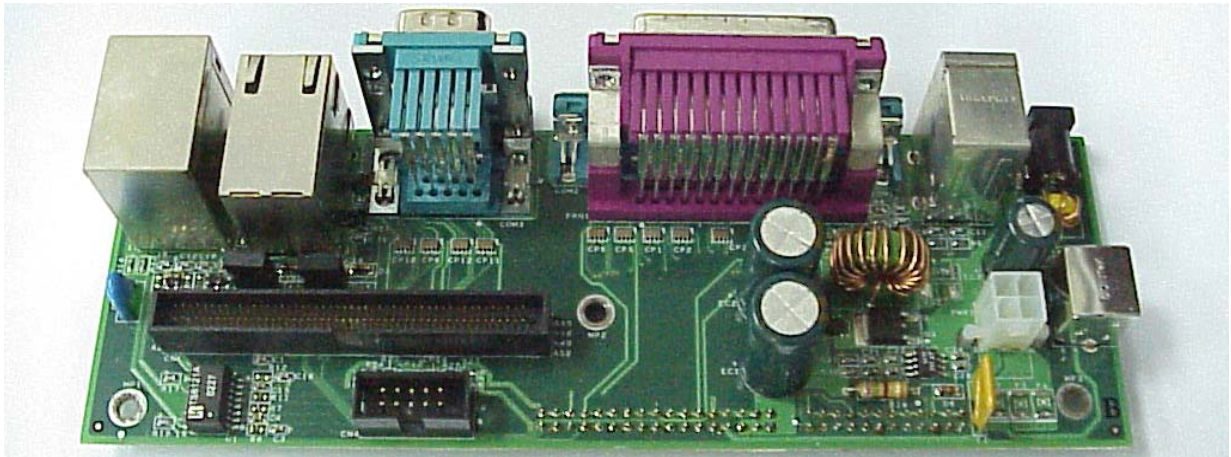
OPEN



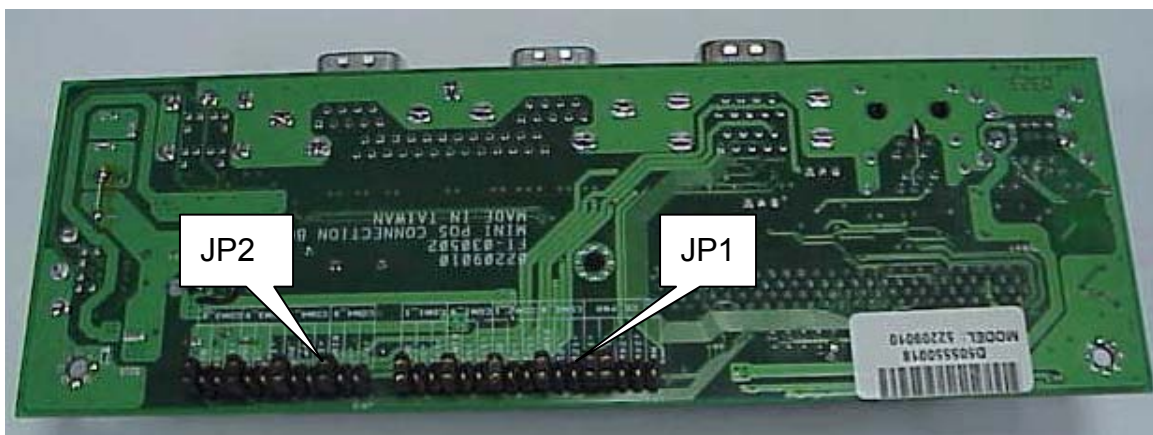
SHORT



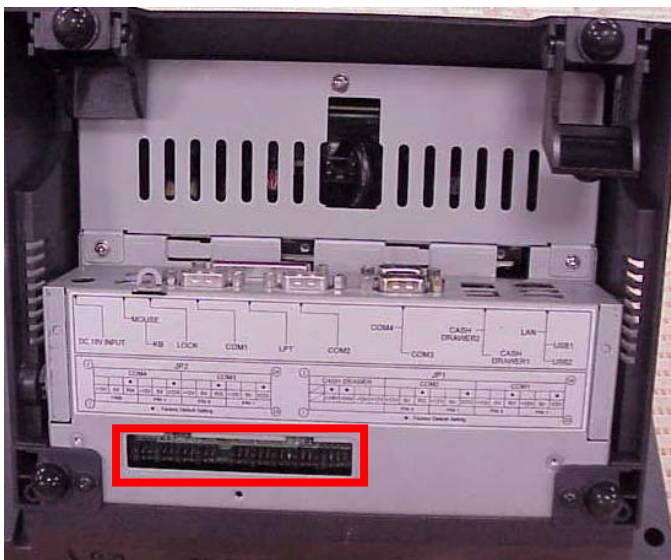
## 6.2 Connector Board Jumper Setting



a. This is the POS310 connector Board. Turn over the board...

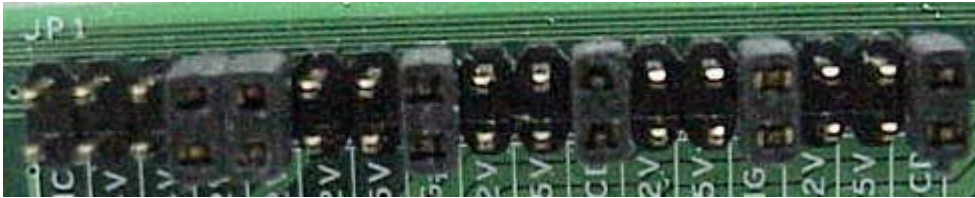


b. And you will see JP1 and JP2 at the back.



c. The Connector Board Jumper location of POS 310/312

## 6.2.1 JP1



### 6.2.1.1 Cash drawer

	CASH DRAWER				
Pin (JP1)	1-2	3-4	5-6	7-8	9-10
Default				•	•
Function	NC	+24V	+24V	+12V	+12V

### 6.2.1.2 COM1 and COM2

	COM2						COM1					
Pin (JP1)	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34
Default			•			•			•			•
Function	+12V	5V	RI	+12V	5V	DCD	+12V	5V	RI	+12V	5V	DCD
Pin(COM)	Pin 9			Pin 1			Pin 9			Pin 1		

## 6.2.2 JP2



	COM4						COM3					
Pin (JP2)	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24
Default			•			•			•			•
Function	+12V	5V	RI	+12V	5V	DCD	+12V	5V	RI	+12V	5V	DCD
Pin(COM)	Pin 9			Pin 1			Pin 9			Pin 1		

Note:

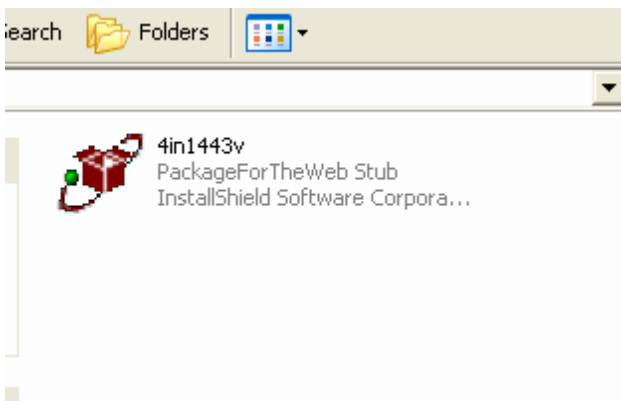


# 7. Driver Installation

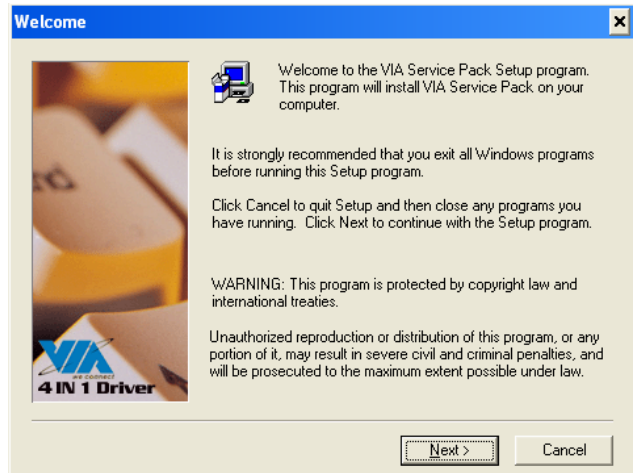
The follow procedures are for Windows XP, other platforms are similar.

## 7.1 Chipset Driver Installation

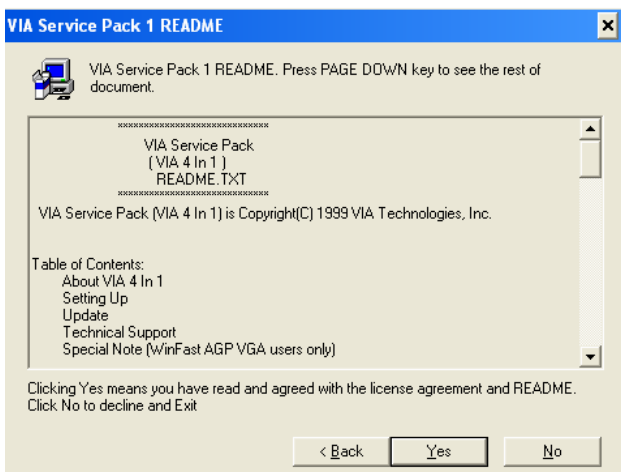
(Path: <CD>:\B46\VIA\_4IN1)



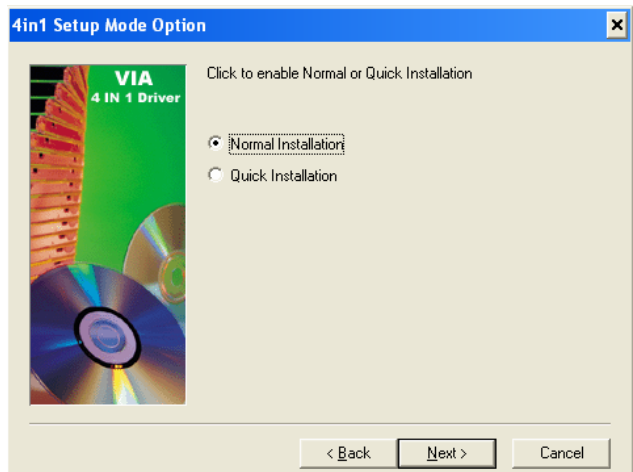
a. Click "4in1443v" on the My Computer window.



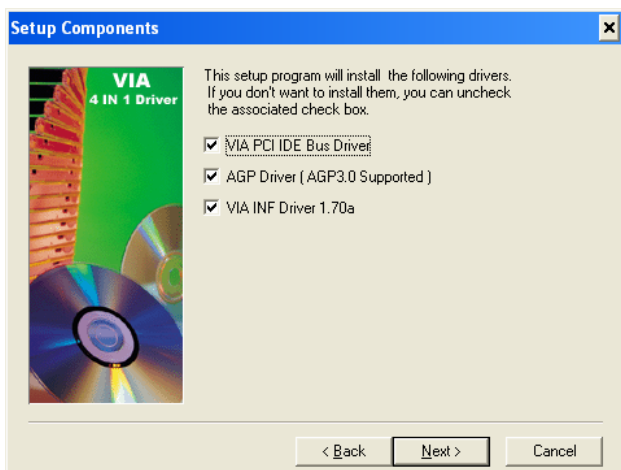
b. Click "Next" button on the welcome window.



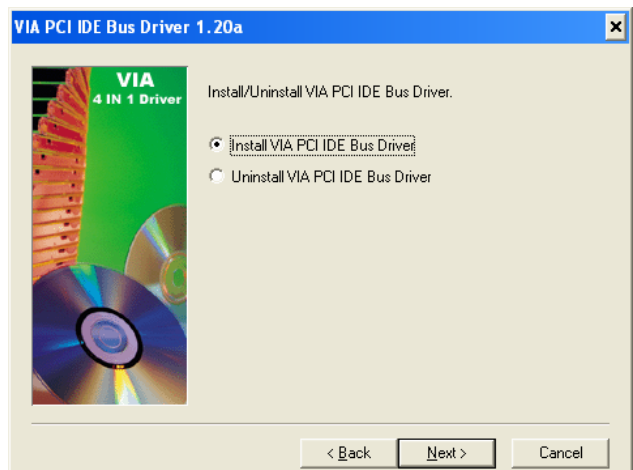
c. Click "Yes" button on the Readme window.



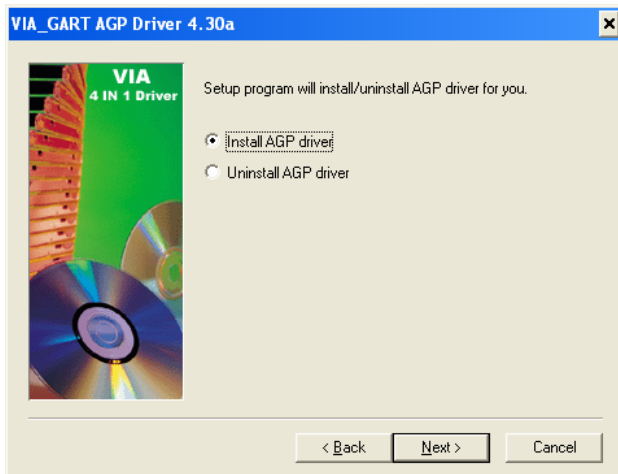
d. Click "Next" button on the 4in1 Setup Mode Option window.



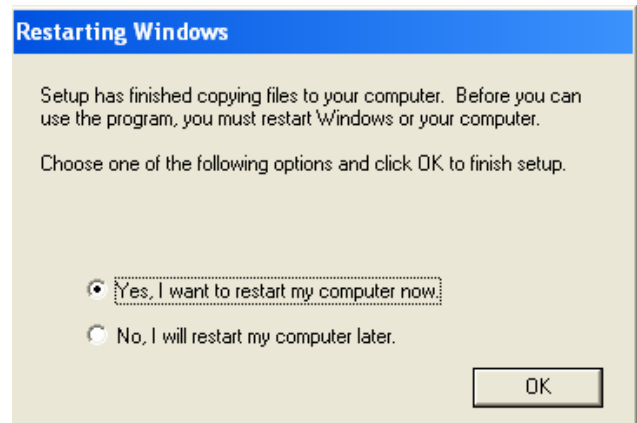
e. Click "Next" button on the Setup Component window.



f. Click "Next" button on the VIA PCI IDE Bus Driver window.



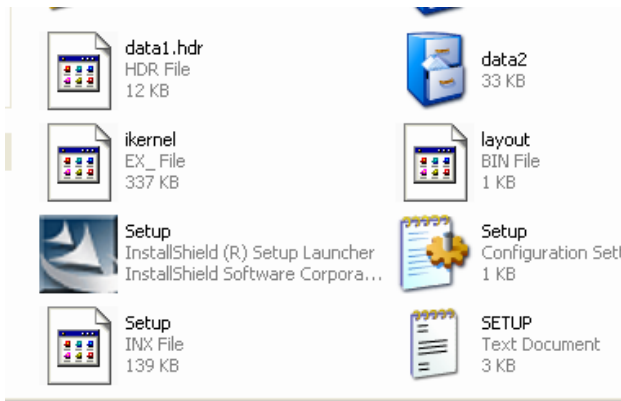
g. Click “Next” button on the VIA\_GART AGP Driver window.



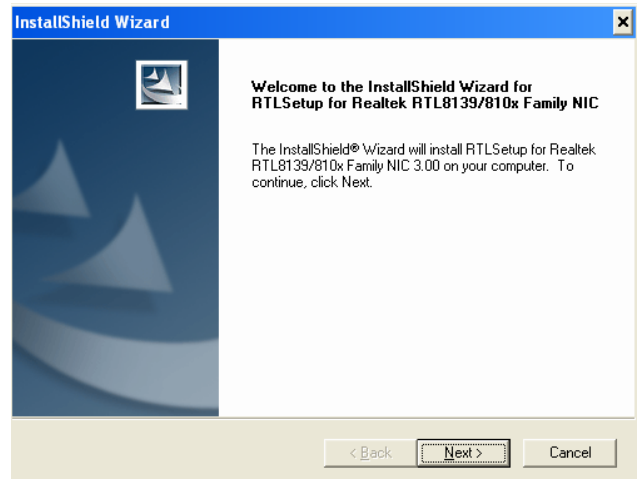
h. Click “OK” button to restart the system.

## 7.2 LAN Driver Installation

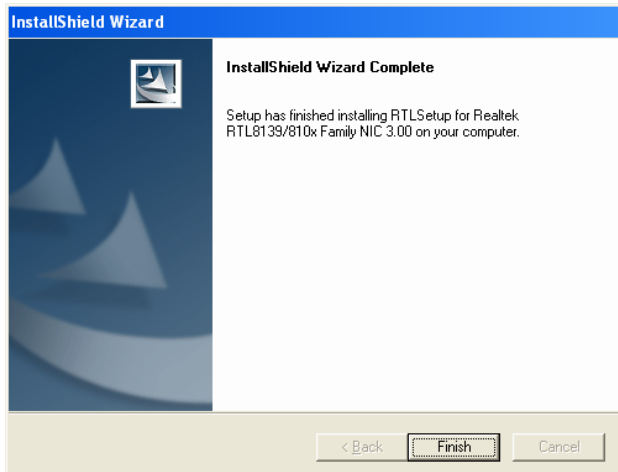
(Path:<CD> :.\Common\Lan\_driver\ R8139\_810x\9x\_ME\_2K\_XP)



a. Click "Setup" on the My computer windows.



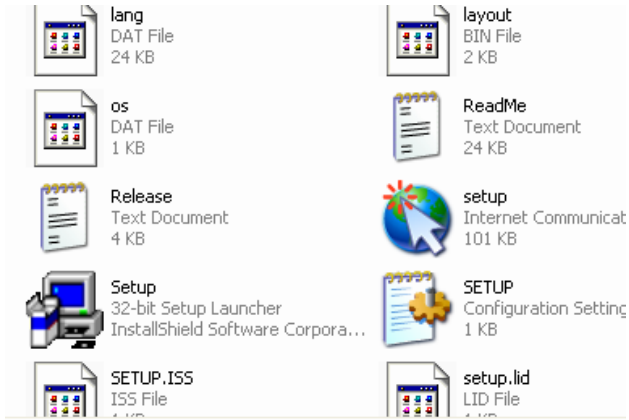
b. Click "Next" button on the InstallShield Wizard window.



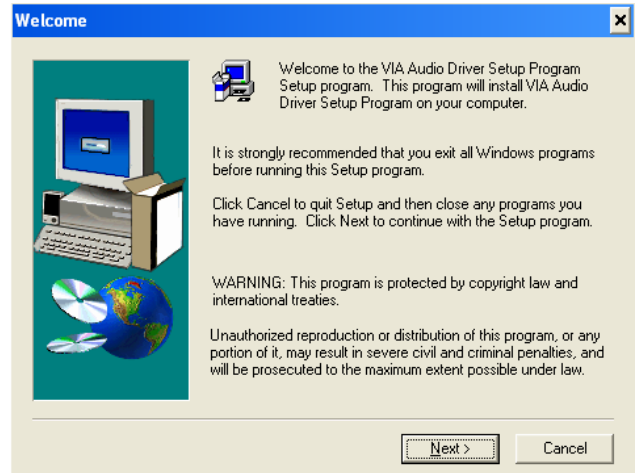
c. Click "Next" button on the InstallShield Wizard complete window.

## 7.3 Audio Driver Installation

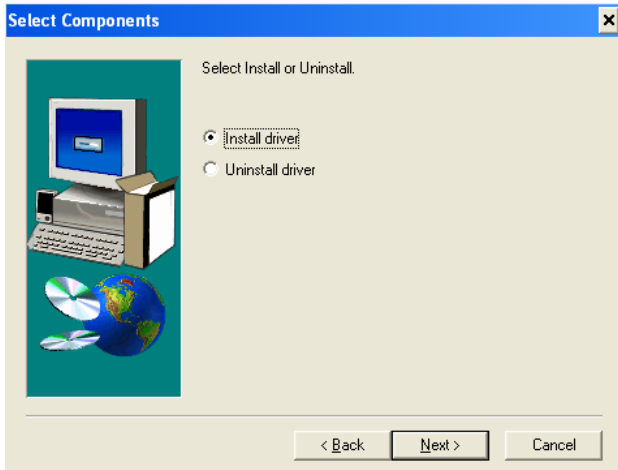
(Path: <CD>:\B46\Audio\V4.50b)



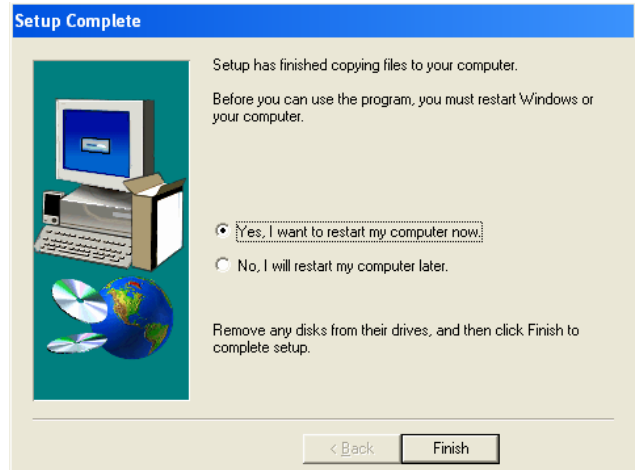
a. Click "Setup" on the My computer windows.



b. Click "Next" button on the welcome window.



c. Click "Next" button on the Select Component window.

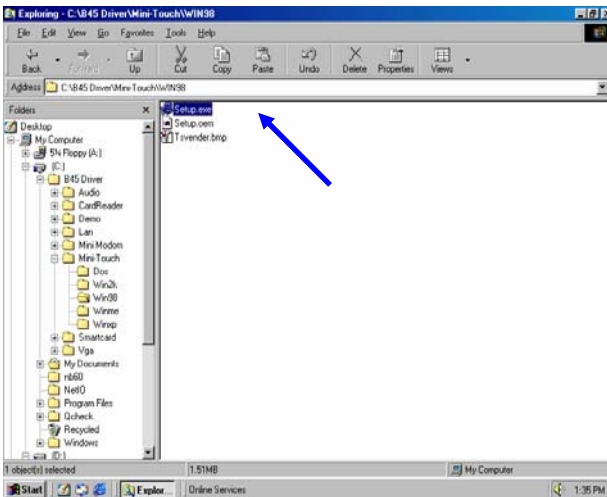


d. Click "Finish" button to restart the system.



# 7.4 Touch

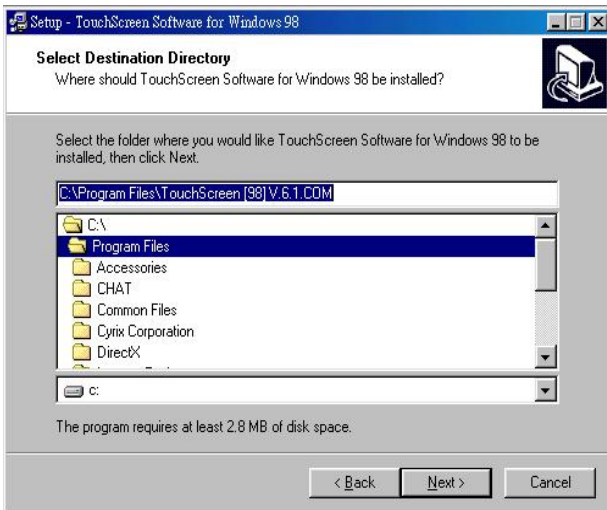
Driver path in Driver Bank: COMMON\ION\_Touch\WINXP\



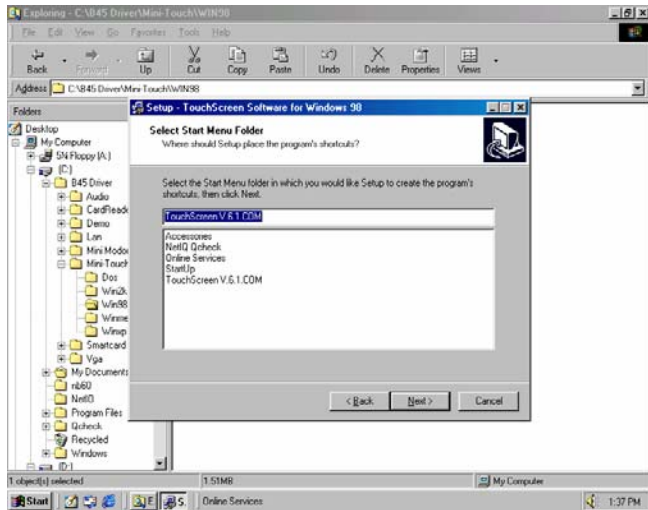
a. Double-click Setup.exe



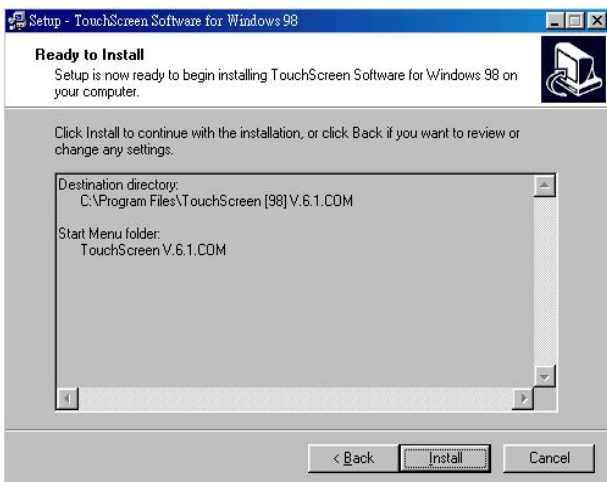
b. Click "Next"



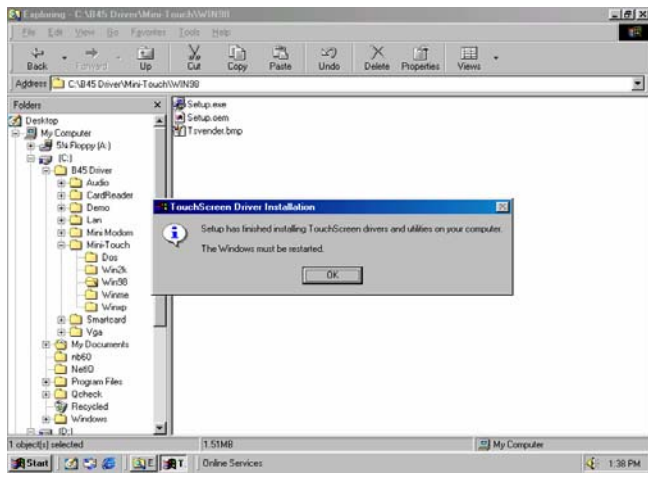
c. Select the location then click "Next"



d. Click "Next"



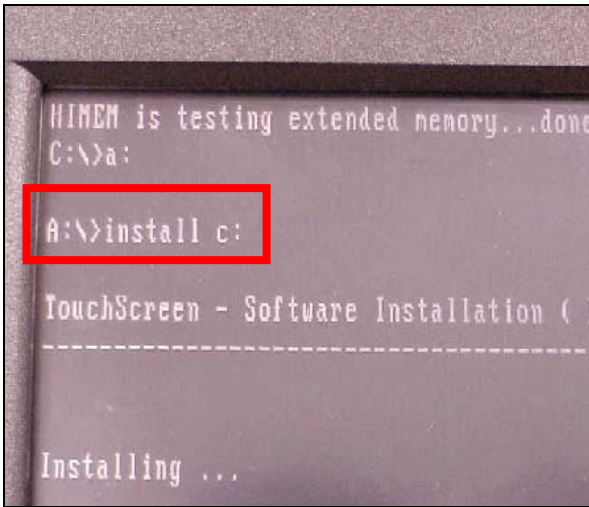
e. Click "Next"



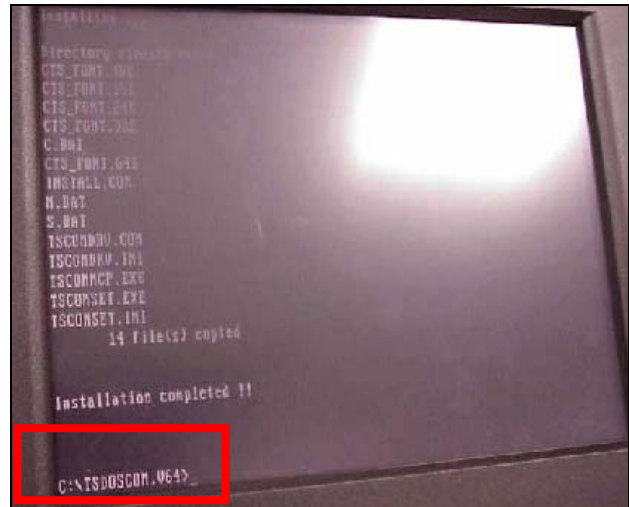
f. Click "OK" to restart computer

# 8. Install touch driver on DOS mode

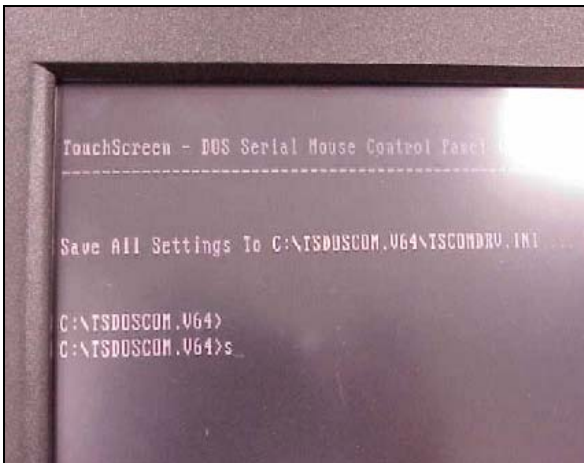
Driver path in Driver Bank: COMMON\MION\_Touch\DOS\



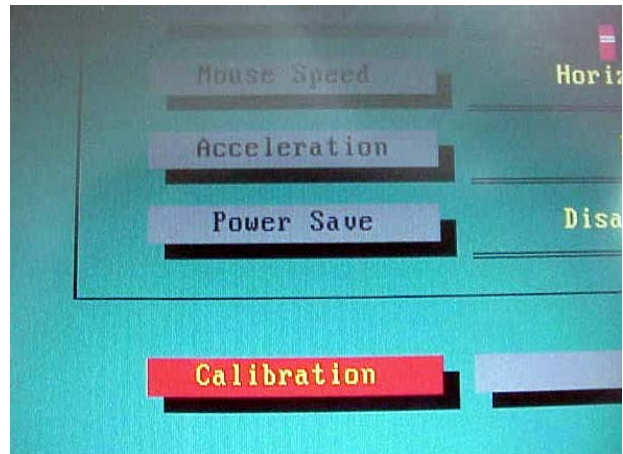
a. Input command "install C:" to install the driver to C



b. Input Command "m" to install driver



c. Input command "s" to run Touch screen control panel window.

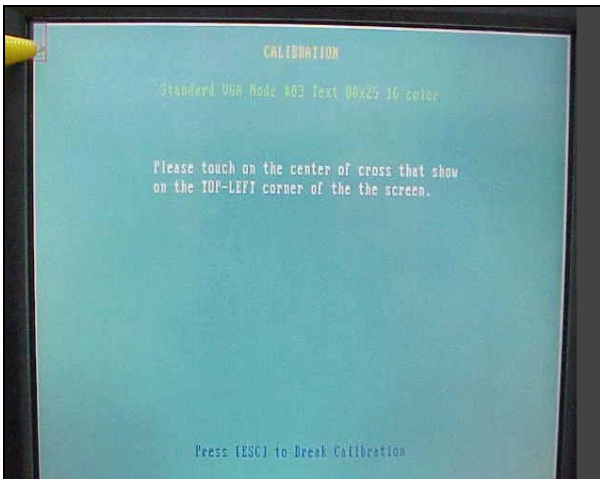


d. Select "Calibration" on Touch screen control panel window.

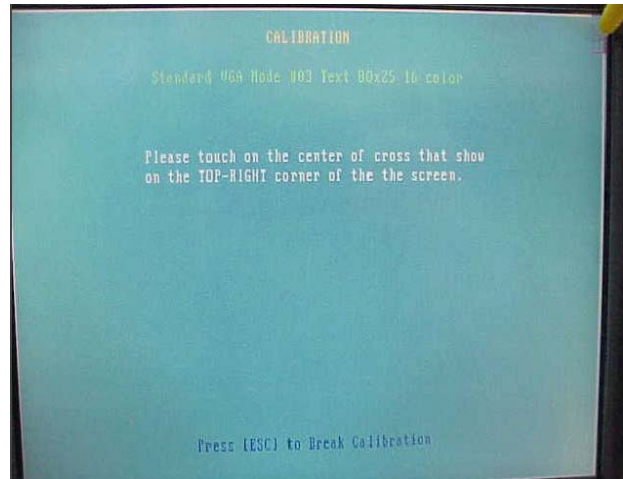


e. Select "VGA 3h" and then click "Start"

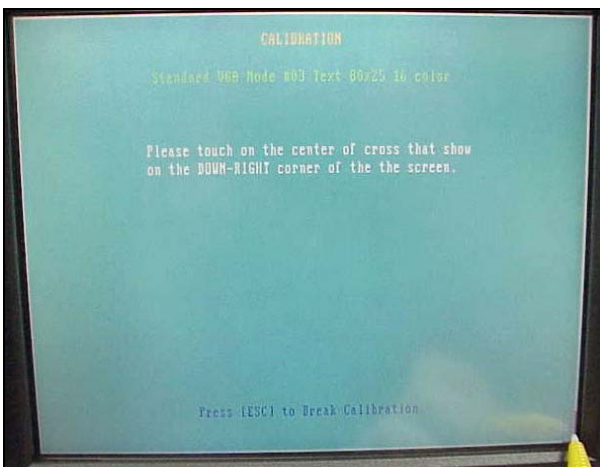




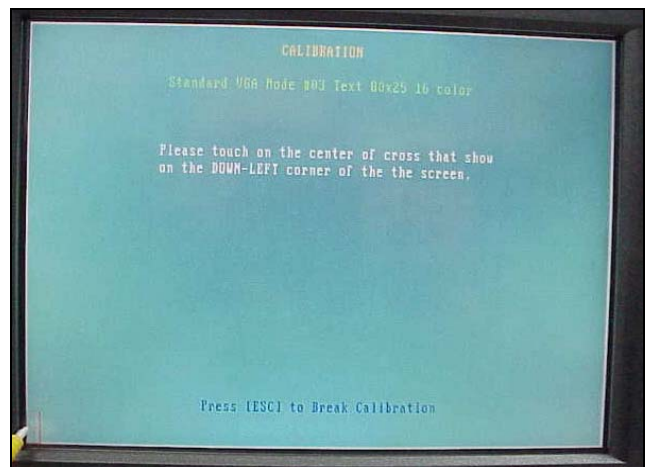
f-1. Touch the targets for alignment.



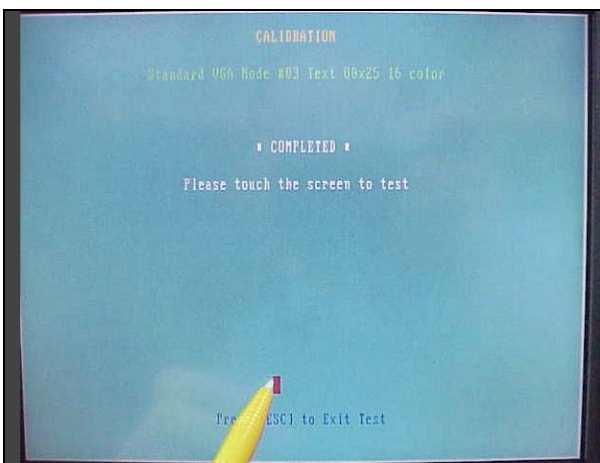
f-2. Touch the targets for alignment.



f-3. Touch the targets for alignment.



f-4. Touch the targets for alignment.



f-5 Touch the targets for alignment.

Note: You also can select other VGA mode you want. Please follow the installation step e.

For Example: VGA 3h=> Text 80\*25 16 color

VGA 4h=> Graph 320\*200 4 color