POS500/505
with B55/B65 M/B
Installation Guide

Point-of-Sale
Hardware System

Safety

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions carefully.   Save these instructions for future reference.

2. Follow all warnings and instructions marked on the product.

3. Do not use this product near water.

4. Do not place this product on an unstable cart, stand, or table.   The product may fall, causing serious damage to the product.

5. 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.

6. 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.

7. Do not allow anything to rest on the power cord.   Do not locate this product where persons will walk on the cord.

8. 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 condition: (1)This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesired operation.

Caution on Lithium Batteries

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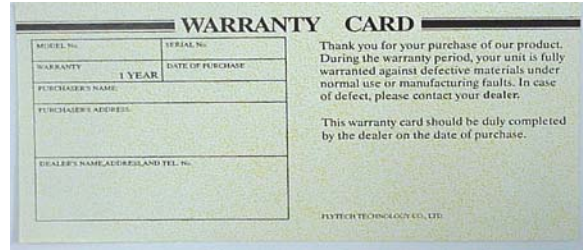
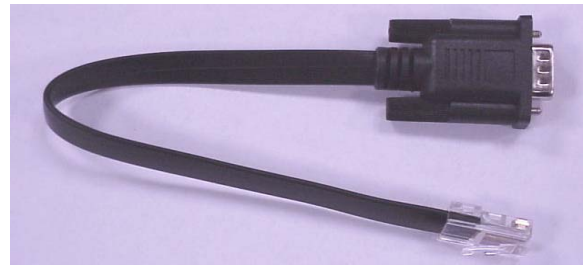# Index

1.Accessory

Power Cord

Warranty Card

Printer Cable
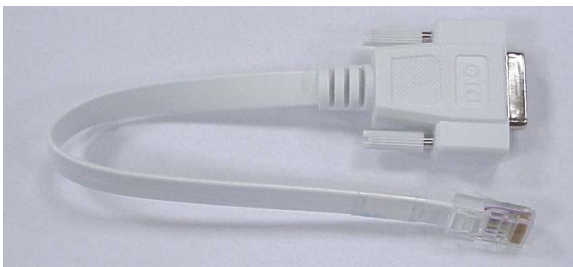

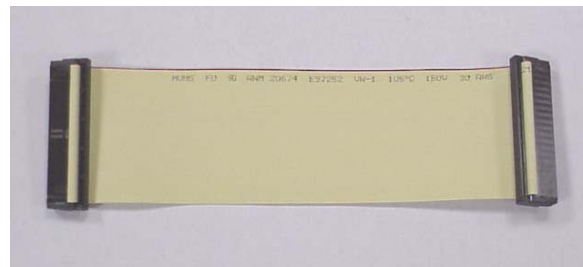FDD Cable

Y Cable (Keyboard & Mouse)
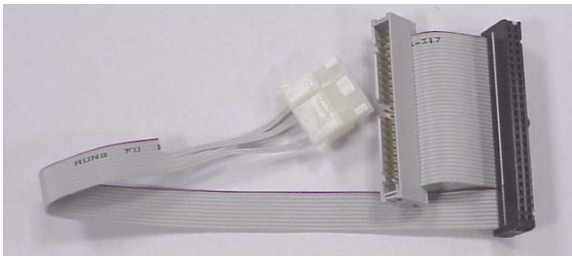

Serial Cable

DIO Cable

External IDE Cable

External IDE Cable   Drivers Bank

The following drivers in the folders of Driver Bank are necessary for driver installation:

Folder	Driver	Function
Common	Acrobat	Acrobat Reader Installation
	BIOS Tool	BIOS Update Tool
	CDROMDrv	CDROM driver installation (for DOS)
	Elo_Touch	Touch screen driver Installation
	LAN_drive	LAN driver installation
	* Netmos	Enable COM5/COM6
	Smart Card	Smart Card driver installation
B55 (POS500/505)	Audio	Audio driver Installation
	UDMA	UDMA driver installation
	VGA	VGA driver installation
B65 (POS500)	Doc2000	Doc2000 driver installation
	VGA_69000	VGA driver installation
Test Utility	Card Reader	Card Reader Test Program
	Cash Drawer	Cash Drawer Test Program
	VFD	Customer Display Test Program

 * When using B55 Mainboard, the Touchscreen was set on COM5. The Netmos driver

    must be loaded to enable COM5 & COM6 before installing ELO touch driver to COM5.
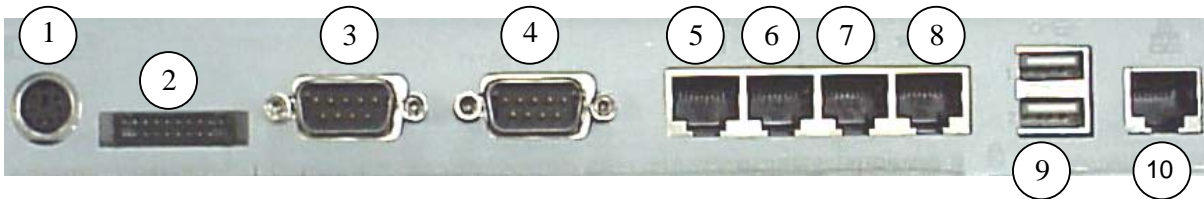
2.I/O Function

2.1Front View

#	Function
1	LCD Touch Module
2	Power Switch & External IDE Connector
3	Card Reader
4	External FDD Connector & Compact Flash Socket

2.2I/O port

#	Function	#	Function
1	KB / Mouse	6	COM4
2	LPT	7	COM6
3	COM1	8	Cash Drawer
4	COM2(optional 2nd VGA port)	9	USB1&2
5	COM3	10	LAN

3.Specification

Item	POS500	POS500/505
Main Board	B65	B55
CPU	Supports SK 370 Celeron / PIII FSB 66/100Mhz	Supports SK 370 Celeron / PIII FSB 66/100/133Mhz
Co-processor	Built-in CPU	
Internal Cache	Built-in CPU	
External Cache	Built-in CPU	
System Memory	2 x 168pin DIMM socket, support up to 512 MB	2 x 168pin DIMM socket, support up to 1GB
BIOS	Award PnP BIOS	
Core Logic	Intel FW82443BX	SiS 630ST Single Chip
VGA Display	C&T69000 Chip 2MB RAM on chip	Built-in SiS630ST SMA 8M/16M/32M/64MB
LCD Panel	POS500　12.1" TFT 800x600　180 cd/m^2　Touch resistive type POS505　15"　TFT 1024x768　250 cd/m^2　Touch resistive type Viewing angle 0°~60°	
IDE Controller	PCI IDE supports ATA PIO/UDMA33	PCI IDE supports ATA PIO/UDMA33/66/100
Hard Disk Drive	One 3.5" HDD drive by Primary IDE (HDD option)	
I/O controller	SMSC37C602 support one 40-pin	Built-in Core Logic SiS 630ST W83697HF / W83697HF NetMos PCI　9835 x1
FDD controller	40-pin 2.54mm pitch pin-header with power	
I/O Port	DB-9M COM x 2 (COM1&2) ,10-pin RJ-45 COM x 3 (COM3/4/6) (COM5 default for Touch Screen),RJ-45 LAN x 1, RJ-45 Cash Drawer x 1, USB x 2	
LAN port	Intel 82559ER LAN Chip	RTL8139C
ROM disk	DiskOnChip Socket supported	
Card Reader	Keyboard/Serial (3-Track) types supported (20pin) Can also bundle Barcode Card Reader & Magnetic Card Reader	
Compact Flash	Type 1 Compact Flash Socket Supported	
Customer Display	Options Fix type customer display supports LED/VFD/LCD type Pole display supports LED/VFD/LCD type	
Second display	Optional　8.4"/10.4"/12.1" TFT LCD display	
Power Supply	FT8007 Int. AT 75W Factory optional FT8150 Int. ATX 150W	FT8150 Int. ATX 150W
Operation Temperature	5℃~ 35℃	

EMI/EMS	CE (Class-A)
System Dimension(WxDxH)	POS500 12.1" 33 x 32 x 24cm POS505 15"　37.9x34.5~36.1x20.1~31.2cm
System Weight (Net)	7.5 Kgs. (16.5 Lbs.)

Note: The control Chip of B55 (Netmos NM9835)/B65(IMP16C552)of COM5 & COM6 is PCI 2.1 protocol which not support system standby mode.

3.1System Memory Combination

B65(POS500)

RAM Size Slot	128MB		256MB			512MB		
DIMM1	X	128	128	256	X	256	512	X
DIMM2	128	X	128	X	256	256	X	512

B55(POS500/505)

RAM Size Slot	128MB		256MB			512MB			1024MB
DIMM1	X	128	128	256	X	256	512	X	512
DIMM2	128	X	128	X	256	256	X	512	512

Note: Please note that DIMM1 of POS500 does not support RAM over 29 mm in height.

4.Peripherals Installation

4.1Install External FDD
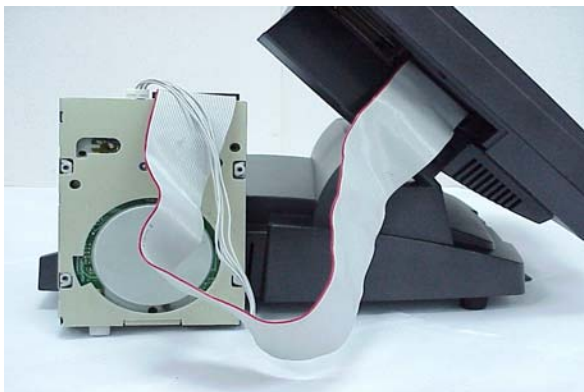
a. Connect the FDD cable from 40 pin FDD connector left side of LCD module..
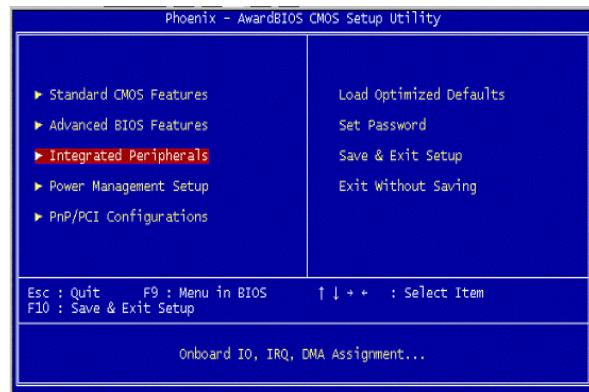
b. Enter "Integrated Peripherals" of the Main Menu of BIOS CMOS Setup Utility.
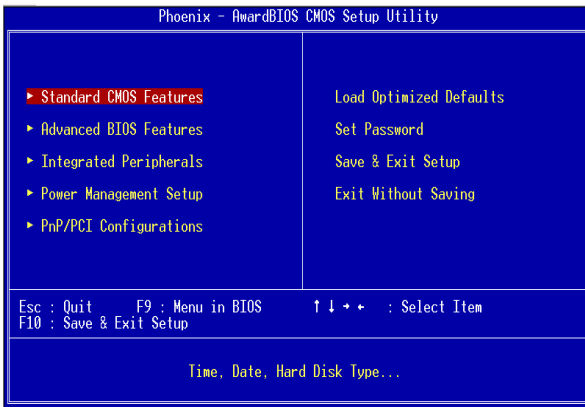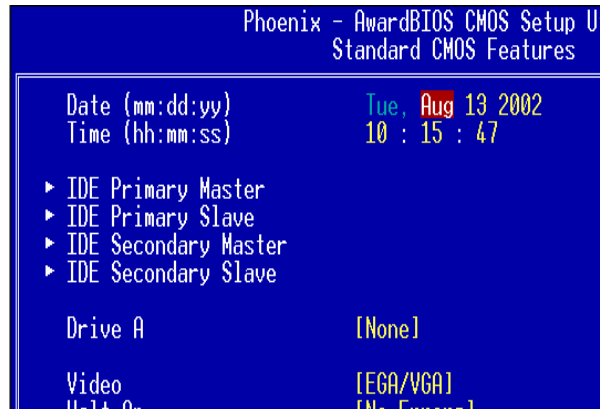
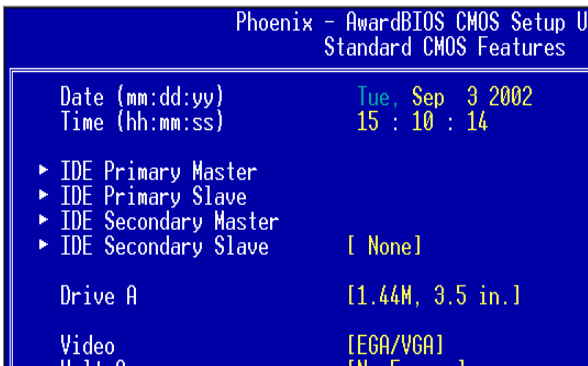c.Move the arrow key downward to the "Onboard Super IO Device" item
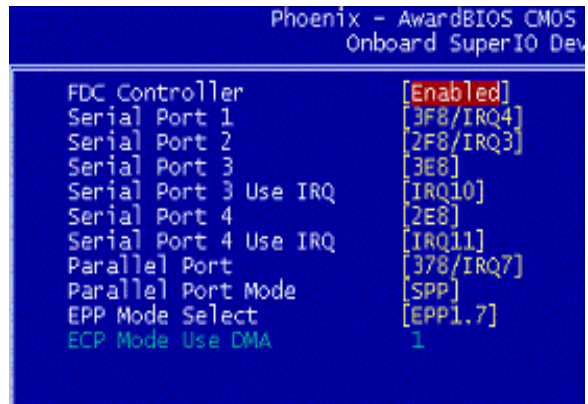
d. Move the arrow key downward to the "FDC Controller" item. Use "Page Up" or "Page Down" key change to "Enable"

e. Enter "Standard CMOS Features" of the Main Menu of BIOS CMOS Setup Utility.

f. Move the arrow key downward to the "Drive A" item.

g. Use "Page Up" or "Page Down" key for FDD Installation. Make sure you save the changes by pressing F10 key or moving to "Save & Exit Setup."

4.2 Install External IDE Device

a. Take out the manufacturer's IDE cable provided in the accessory bag, connect the second HDD or CD-ROM drive to the 50-pin Header as hidden in the Front Cover of the Base Stand.

b. Connect the IDE cable from either the second HDD or CD-ROM drive to the 50 pin Header hidden in the Front Cover of the Base Stand.

4.3 Install MCR Module (Optional)

The optional MCR (Magnetic Card Reader) unit is tested and can be supplied at your request.   This MCR is removed during transportation and can be connected by the user. The manufacturer offers two types of MCR Module, either by the Serial type or keyboard type.
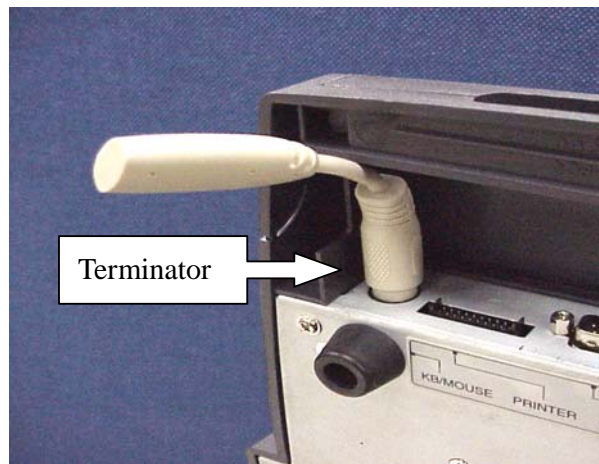
Terminator →

a. Install the MCR module to the right side of System Bay Module and lock it with two screws.

b. If you select a keyboard type MCR and the system does not connect a standard P/S2 keyboard, please insert the Terminator for simulate and instead of the P/S2 Keyboard.

Note: We have a new version that enhances the Keyboard type MCR. When you select a keyboard type MCR, does not connect a standard P/S2 keyboard or insert the Terminator.

4.4 Install Pole Display Module (Optional)

The POS system is equipped with an interface for a connection to a Pole Display Module.
Please refer to COM6 of CN7 of jumper setting section.

a. Remove Pole Display cover from POS system unit by fingers.

b. Install Pole Display cover kit onto POS system unit.

c. Install Pole Display flat cable inside Pole Display Tube. Use either two or one tube.

d. Connect Pole Display cable RJ-45 connector to COM6 of POS system.

4.5 Install a Compact Flash Card

You can install a compact flash card At the left side of the LCD panel.

4.6 Install Cash Drawer

You can install a cash drawer through the Cash Drawer port.

4.6.1 Cash Drawer Pin Assignment

Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V/24V
5	DOUT bit1
6	GND
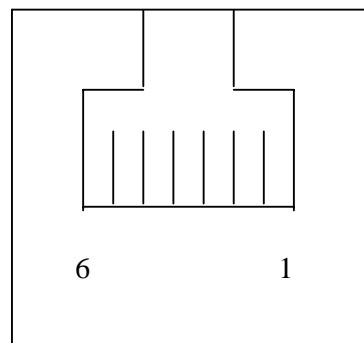
4.6.2 Cash Drawer Controller register

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

4.6.2.1 Cash Drawer Control Register

Register Location: 200h
Attribute: Write
Size: 8bit

```
  7   6   5   4   3   2   1   0
 ┌───┬───┬───┬───┬───┬───┬───┬───┐
 │ X │ X │ X │ X │ X │ X │   │   │
 └───┴───┴───┴───┴───┴───┴───┴───┘
                           └──────── Cash Drawer "DOUT bit0" pin output control
                       └──────────── Cash Drawer "DOUT bit1" pin output control
             └──────────────────── Reserved
```
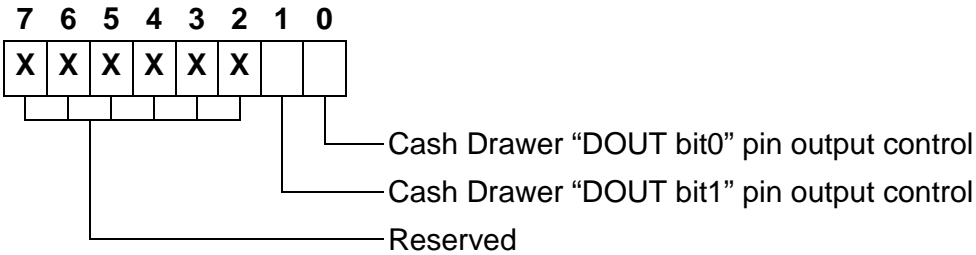
Bit 7-2: Reserved

Bit 1: Cash Drawer "DOUT bit1" pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

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

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

Suggest control the bit1/0 at the same time.

4.6.2.2 Cash Drawer Status Register

Register Location: 201h
Attribute: Read
Size: 8bit

```
  7   6   5   4   3   2   1   0
 ┌───┬───┬───┬───┬───┬───┬───┬───┐
 │ X │ X │ X │ X │ X │ X │ X │   │
 └───┴───┴───┴───┴───┴───┴───┴───┘
                           └──────── Cash Drawer "DIN bit0" pin input status
              └──────────────────── Reserved
```
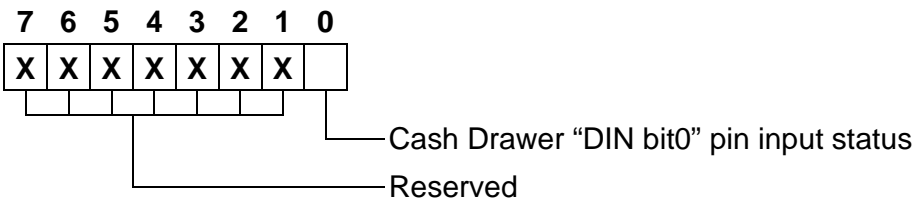
Bit 7-1: Reserved

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

= 1: the Cash Drawer opened or not exists.

= 0: the Cash Drawer closed.

4.6.3 Cash Drawer control command example

Use Debug.EXE program under DOS or Windows98

Command	Cash Drawer
O 200 01	Opening
O 200 00	Allow to close
➢ Set the I/O address 200h bit0 =1 for opening Cash Drawer by "DOUT bit0" pin control.	
➢ Set the I/O address 200h bit0 = 0 for allow close Cash Drawer.	

Command	Cash Drawer
I 201	Check status
➢ The I/O address 201h bit0 =1 mean the Cash Drawer is opened or not exist.	
➢ The I/O address 201h bit0 =0 mean the Cash Drawer is closed.	

4.7 Install Second display (Differential of connector board)
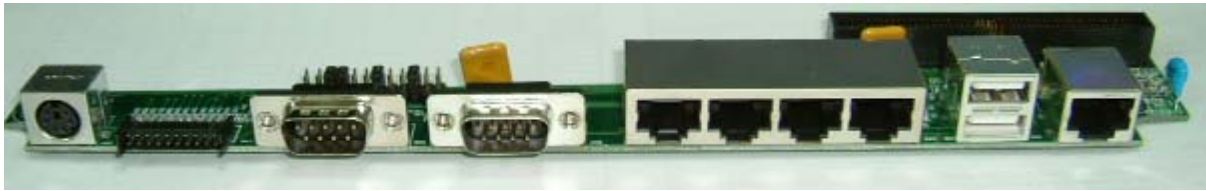
a. Standard connector board.
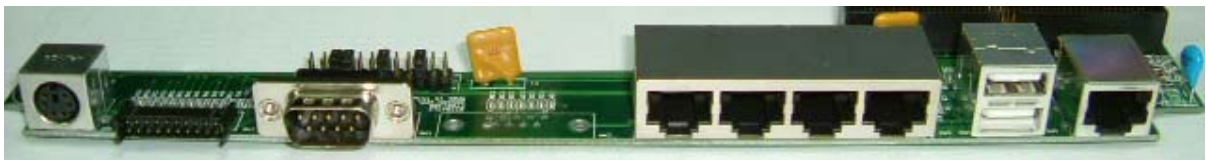
b. Second display connector board.

c. Second display VGA cable 1
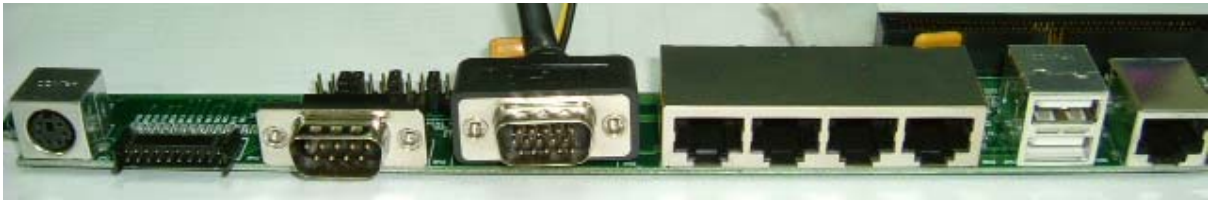
d. Install second display VGA cable replace COM2

e. Second display VGA cable 2
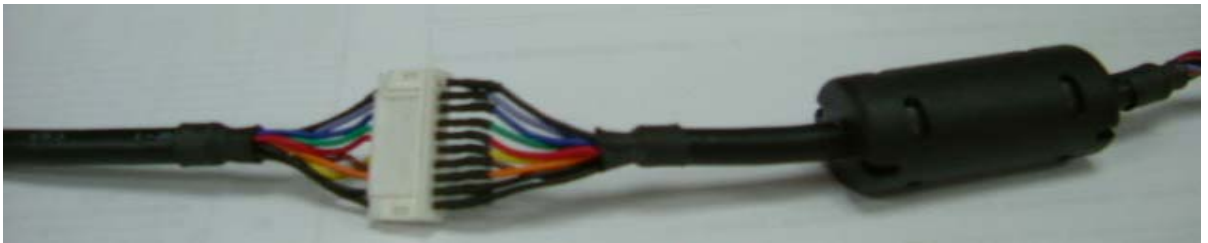
f. A of second display VGA cable 1 connect to D of second display VGA cable 2

g. Power cable of connector board
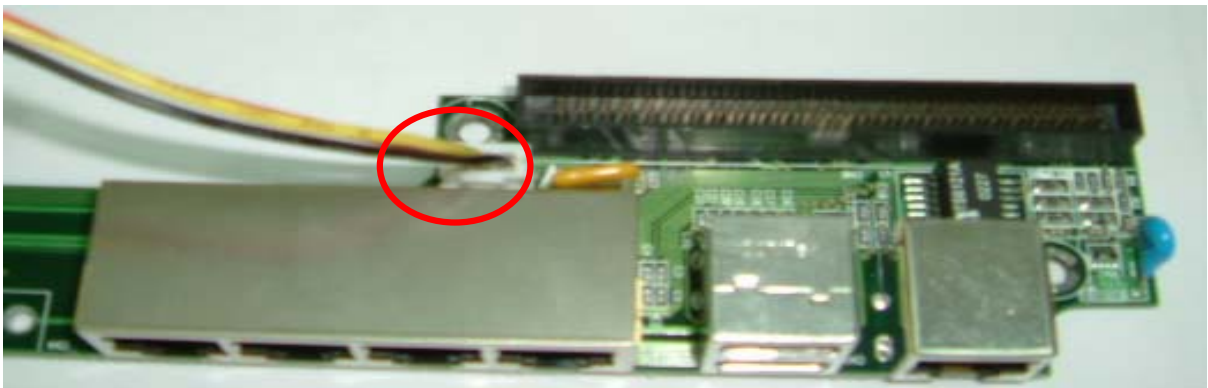
h. E of power cable connected to connector board.
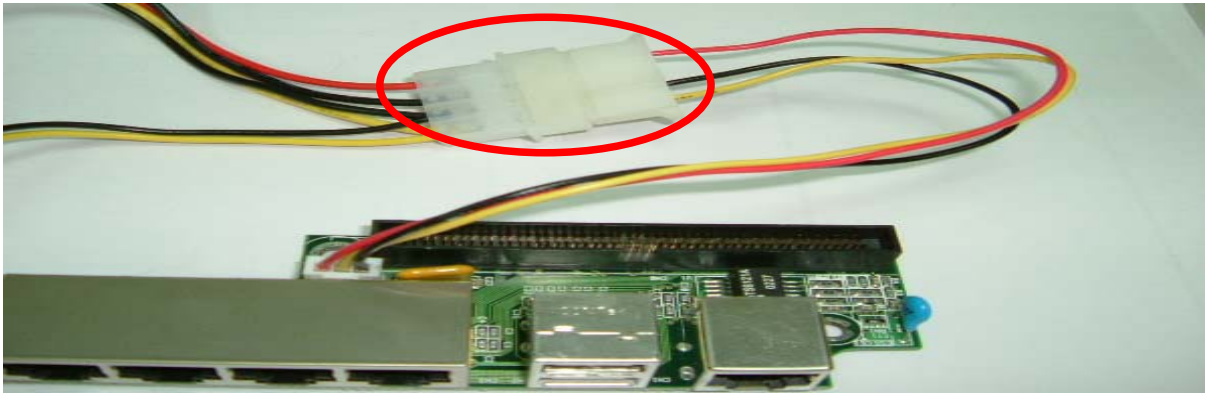
i. B of second display cable 1 connected to F of power cable.
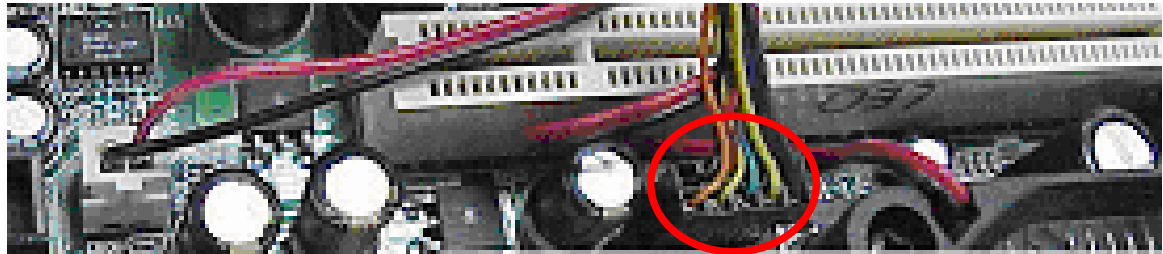
j. C of second display cable 2 connected to main board.

5. Driver Installation

The following procedures are for Windows 2000. Other platforms are similar.

5.1 Netmos
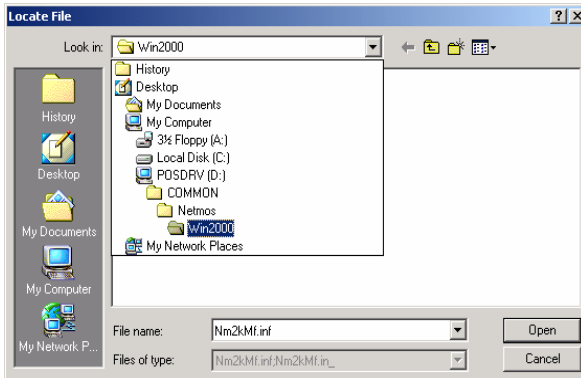
a. Indicate the location of the Netmos driver
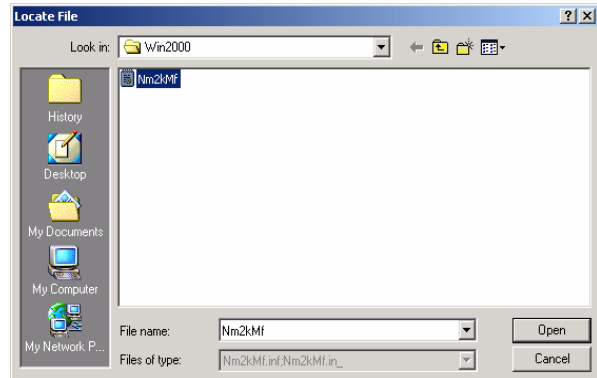
b. Choose "Nm2kMf" in the Locate File window.
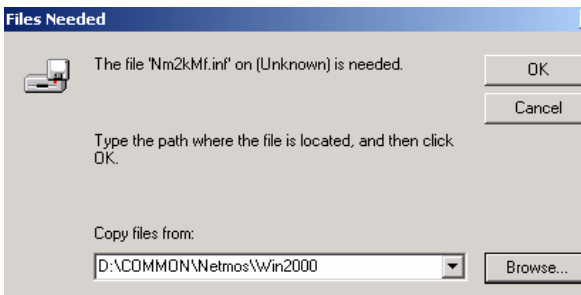
c. Click "OK" on the Files Needed window.
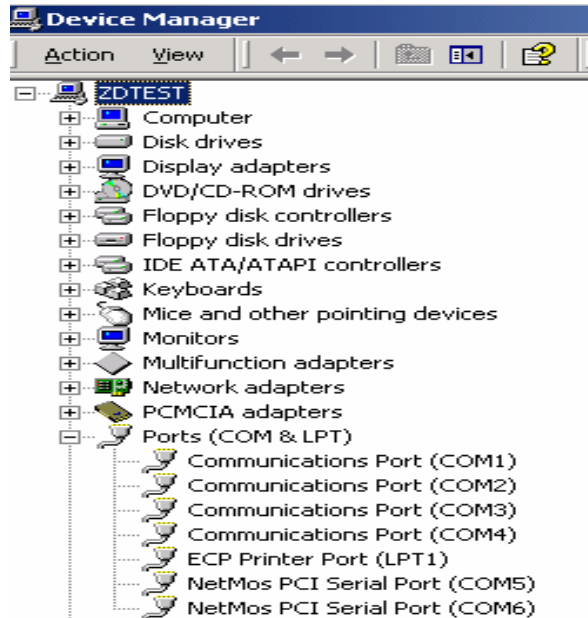
d. Now the Netmos driver is installed.

5.2 Elo_Touch

a. Click "COMMON" on the POS driver window.
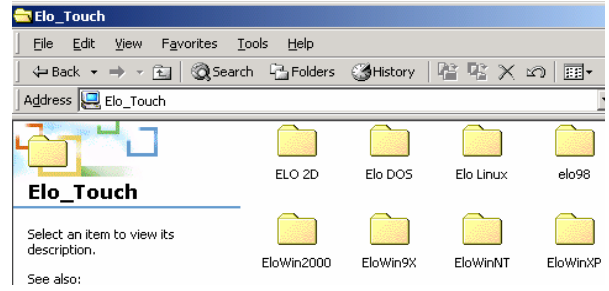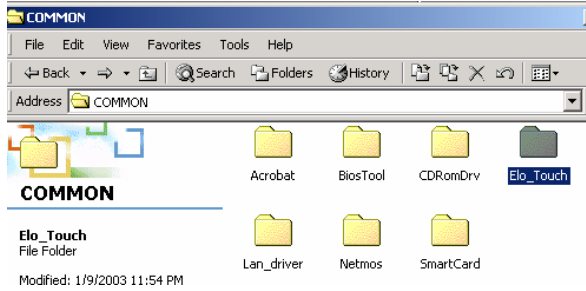
b. Click "Elo_Touch" on the COMMON window.

c. Choose the OS to be installed with Elo _Touch driver.
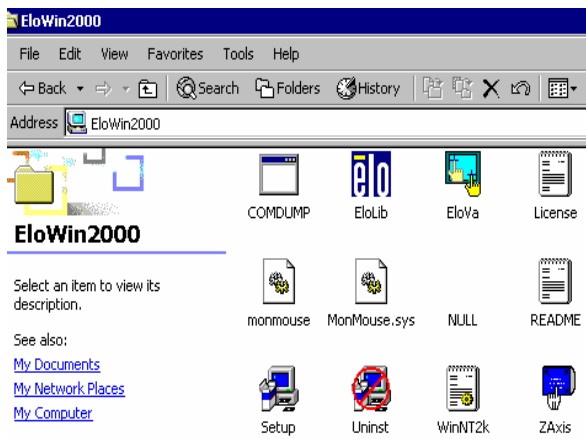
d. Click "Setup" on the EloWin2000 window.

e. Click "Next" on the Elo MonitorMouse for Windows 2000 Setup window.
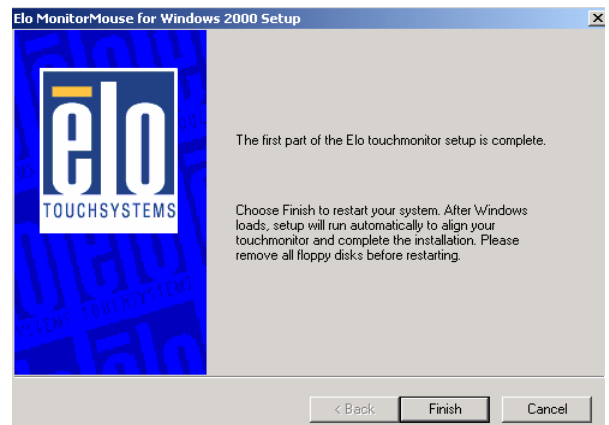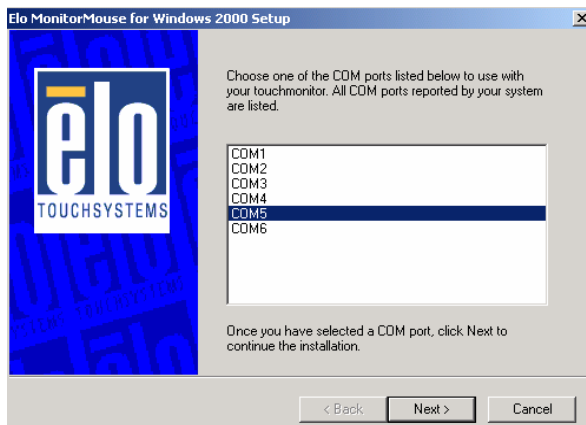
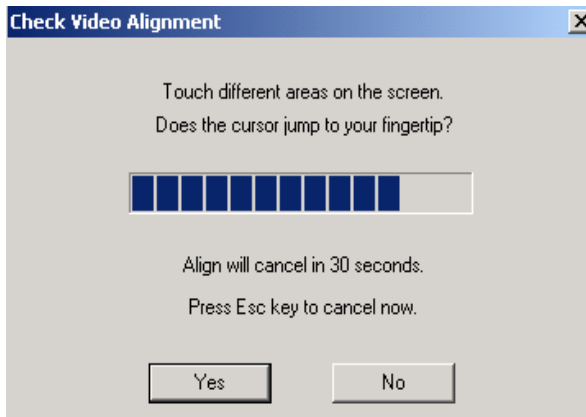d. Choose "COM5" and click "Next" on the Elo MonitorMouse for Windows 2000 Setup window.

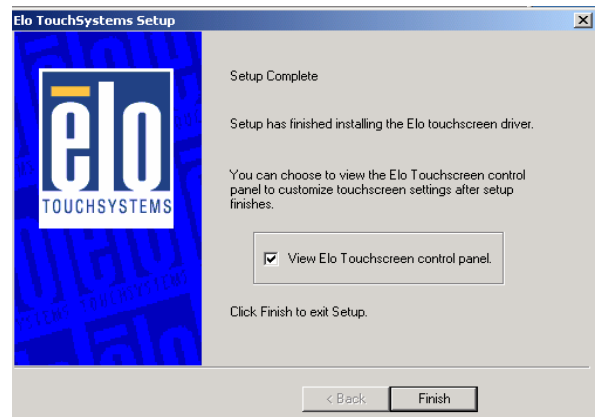e. Click "Finish" on the Elo MonitorMouse for Windows 2000 Setup window.
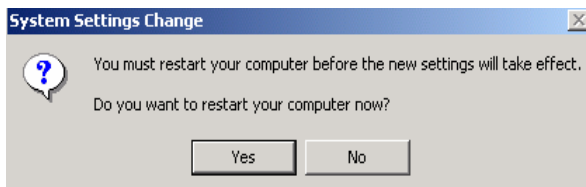
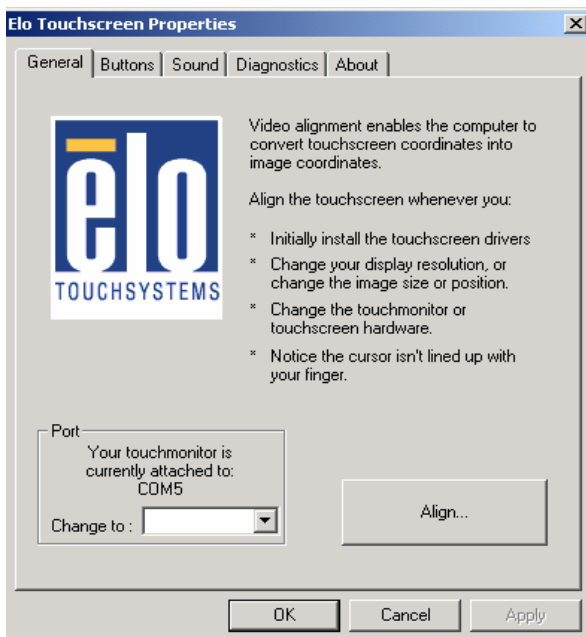f. Click "Yes" on the System Settings Change.
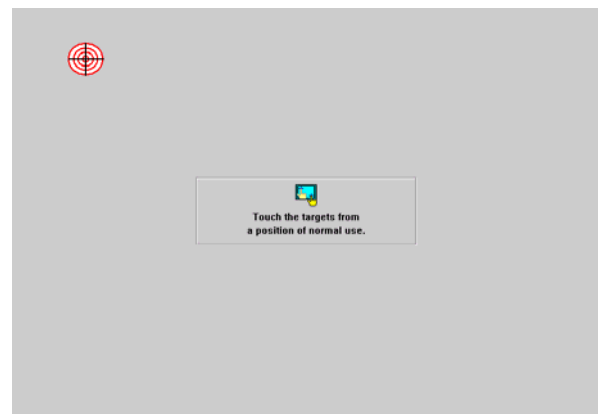
g. After the computer restarted, touch the targets with your finger for alignment.

h. Click "Yes" on the Check Video Alignment window.

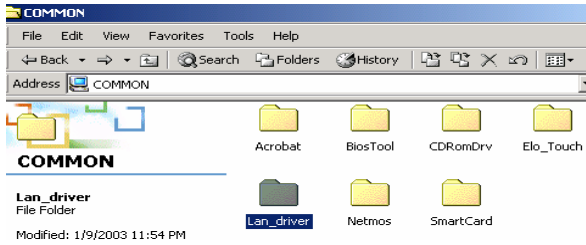i. Click "Finish" on the "Elo TouchSystem Setup window.

j. If the cursor is not in sync with your finger tip, click "Align…" to execute the alignment procedure again, or click "OK"
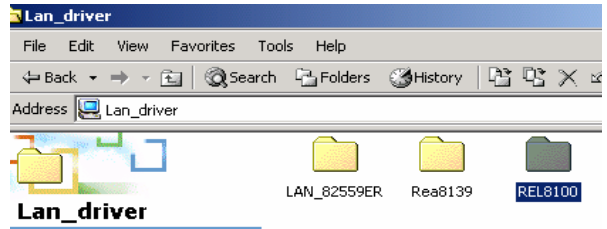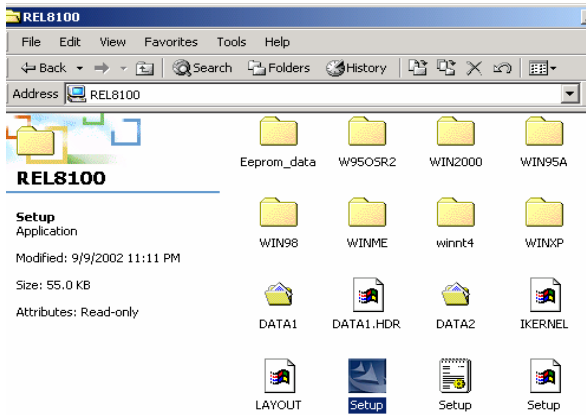
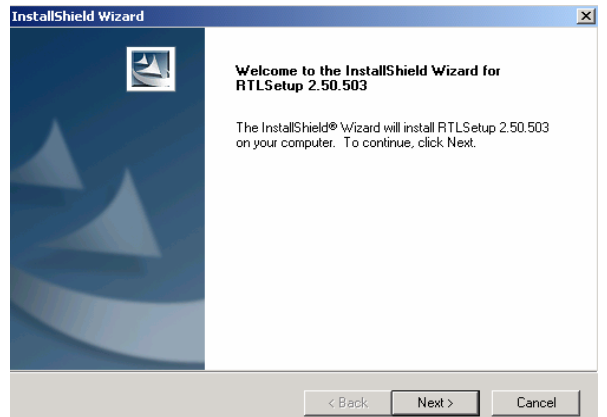k. Now the Elo_Touch driver is installed.

5.3 LAN-driver

a. Click "COMMON" on the POS driver
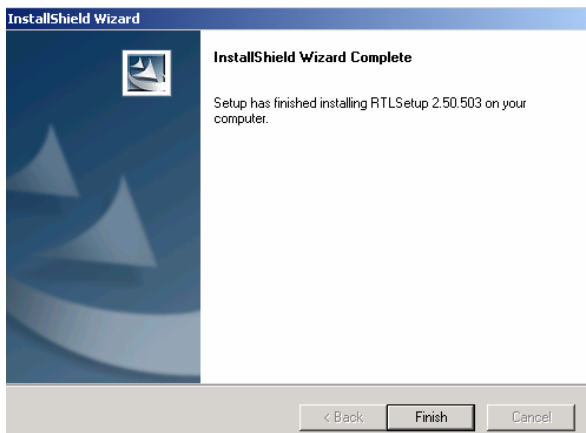 window.
b. Click "Lan_driver" on the COMMON
  window.
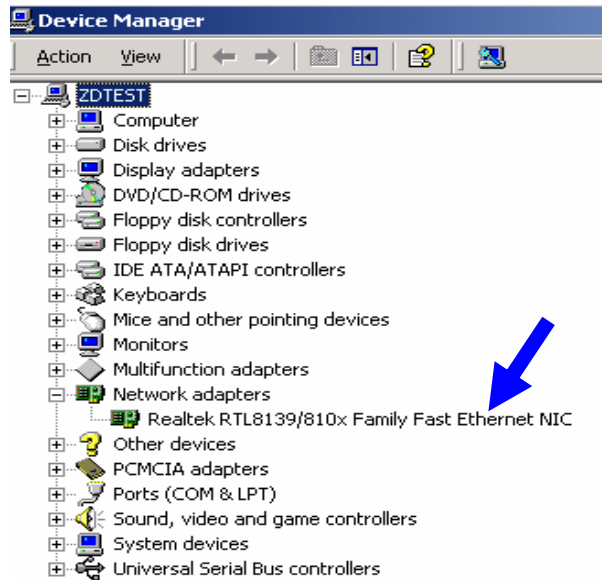

c. Click "REL8100" on the Lan_driver
  window.

d. Click "Setup" on the REL8100 window.
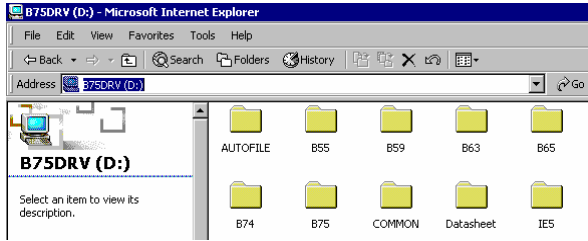

e. Click "Next" on the InstallShieild Wizard.

f. Click "Finish" on the InstallShield Wizard.

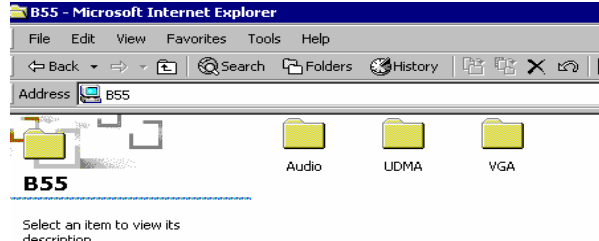g. Now the Lan_driver is installed.
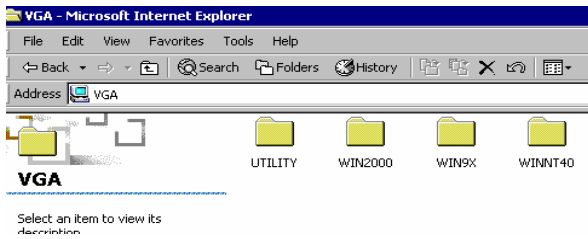
5.4 VGA

a. Click "B55" on the POS driver window.

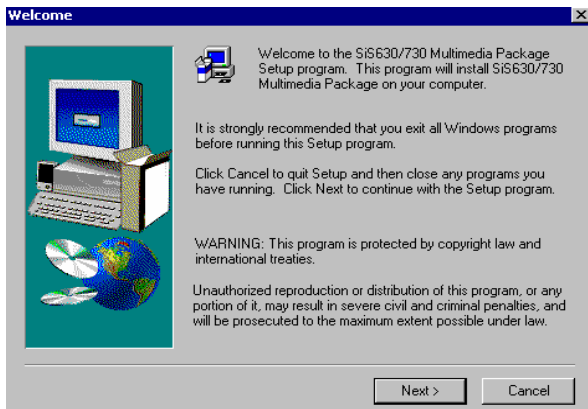b. Click "VGA" on the B55 window.

c. Click "Win2000" on the VGA window.
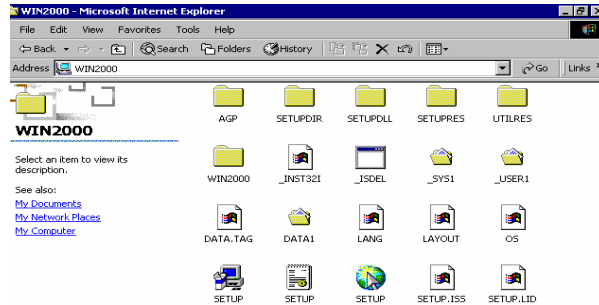
d. Click "SETUP" On the VGA2000 window.

e. Click "Next" on the Welcome window.
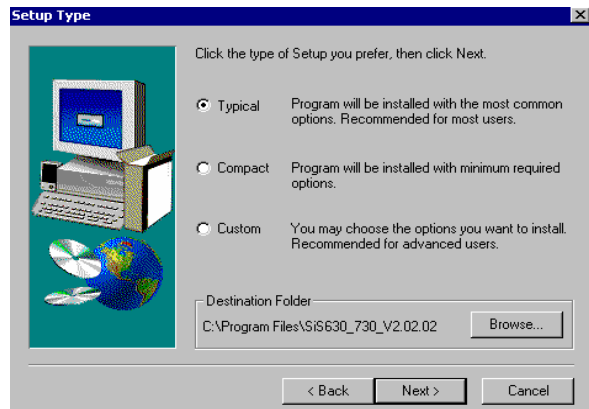
f. Click "Next" on the Setup Type window.
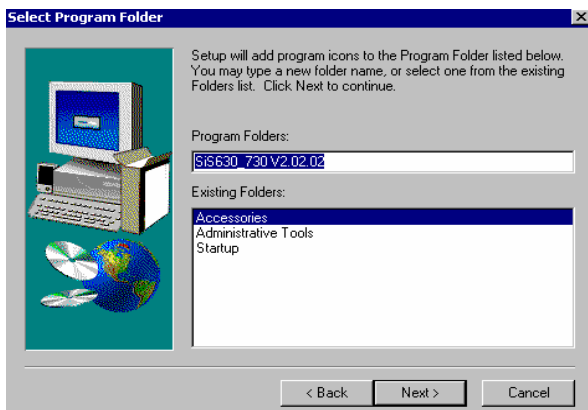
g. Click "Next" on the Select Program Folder window..
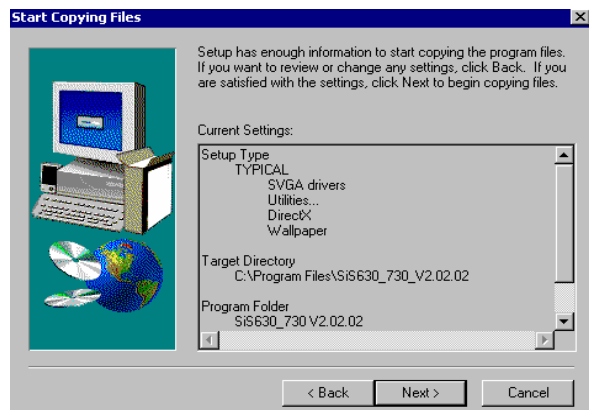
h. Click "Next" on the Select Copying Files window.
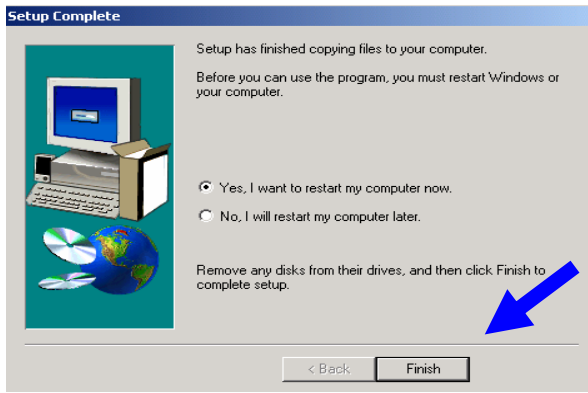
i. Click "Finish" on the Setup Complete window.
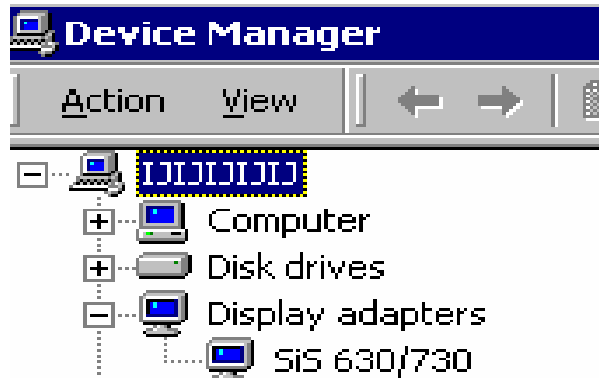
j. Now the VGA driver is installed.

23

6. Jumper Setting

6.1 B65(POS500) Jumpers and DIP Switches Locations
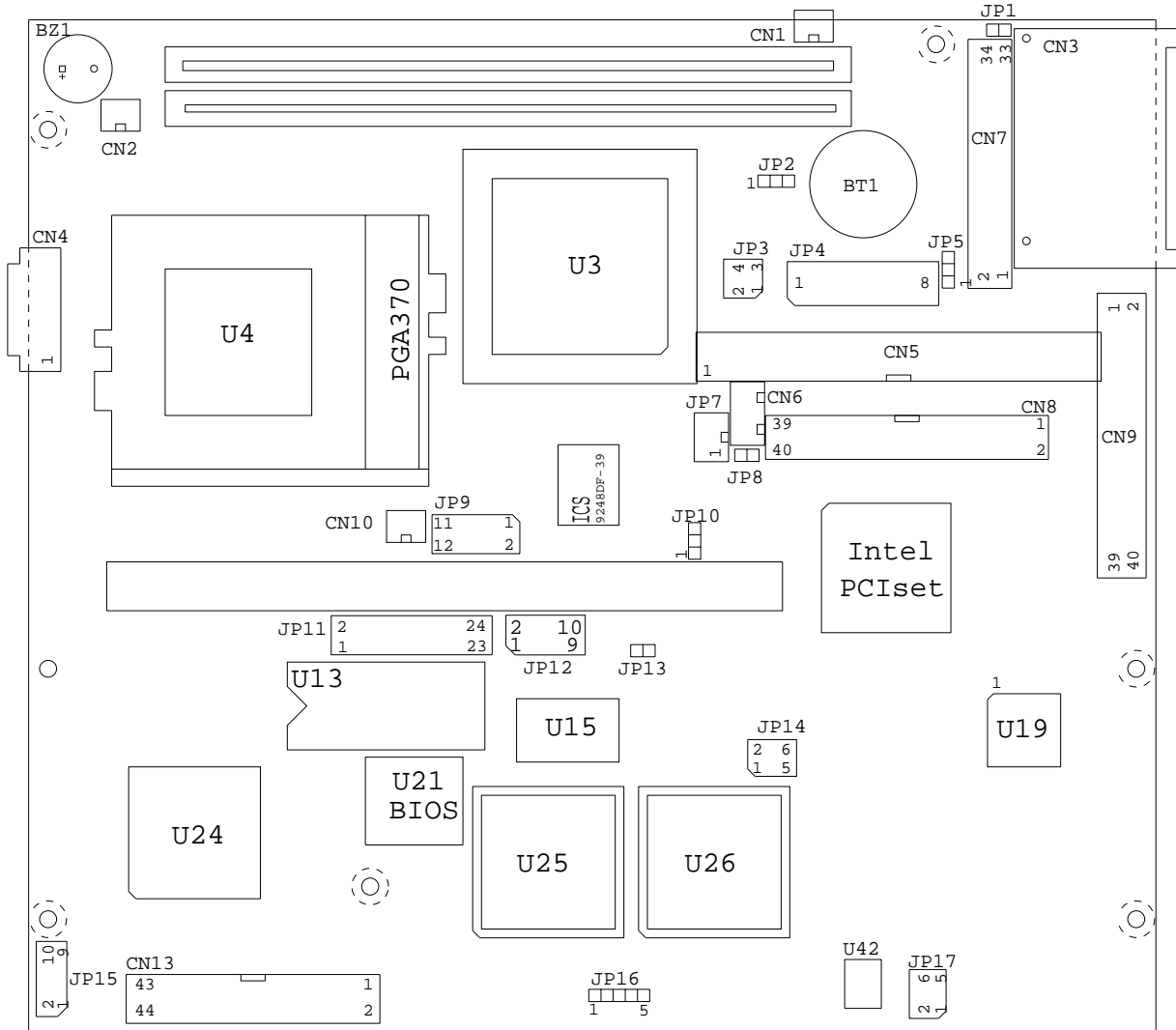
6.1.1 Compact Flash CS Selection   * Factory Default

Function	JP1
*Master	OPEN
Slave	SHORT

6.1.2 CMOS Operation Mode

Function	JP2 (SHORT)
*CMOS Normal	2-3
CMOS Reset	1-2

6.1.3 Card Reader Selection

Function	JP3
*Serial	1-2, 3-4 SHORT
Keyboard	1-2, 3-4 OPEN

6.1.4 Power Mode

Function	JP5	JP8
ATX Power	2-3	OPEN
*AT Power	1-2	SHORT

6.1.5 System Clock Selection: JP9

CPU Clock	PCI Clock	JP9 (SHORT)			
		FS0	FS1	FS2	FS3
100.3MHz	33.43 (/3) MHz	1-3	7-9	2-4	10-12
*66.8MHz	*33.40 (/2) MHz	1-3	7-9	4-6	10-12

6.1.6 PCI VSB Selection: JP10

Function	JP10 (SHORT)
*USER 5VSB	2-3
USER 3VSB	1-2

### 6.1.7 COM5 / COM6 IRQ Selection: JP11

COM \ IRQ	5	9	10	11	12	15
COM5 Touch Screen	*1-2	3-4	5-6	7-8	9-10	11-12
COM6 Pole Display	13-14	*15-16	17-18	19-20	21-22	23-24

6.1.8 M-Systems Disk On Chip $^®$ Address: JP12

Address	JP12 (SHORT)	
0CC00 - 0CDFF	1-2	9-10
0D000 - 0D1FF	3-4	7-8
*0D400 - 0D5FF	3-4	9-10
0D800 - 0D9FF	5-6	7-8
0DC00 - 0DDFF	5-6	9-10

6.1.9 RAM Backup Address Setting: JP14

RAM DATA Address	JP14(SHORT)
*D800 : 0	1-2
D000 : 0	3-4
NC	5-6

6.1.10 Watch Dog Timer List: JP17

Input / Output	Address	JP17
Output	205W	Watch Dog ON
Input	205R	Watch Dog WDI
Input	204R	Watch Dog OFF

6.1.11 Watch Dog Timer Programming:

This jumper is designated to do the setting of the Watch Dog Time.

Time	1-2	3-4	5-6
0.1 sec	SHORT	SHORT	SHORT
0.5 sec	SHORT	SHORT	OPEN
1.0 sec	SHORT	OPEN	SHORT
*1.6 sec	SHORT	OPEN	OPEN
10 sec	OPEN	SHORT	SHORT
1 min	OPEN	SHORT	OPEN
10 min	OPEN	OPEN	SHORT
1hr	OPEN	OPEN	OPEN

Note:

OPEN

SHORT

6.1.12 Pin1 function of COM port selection: CN7
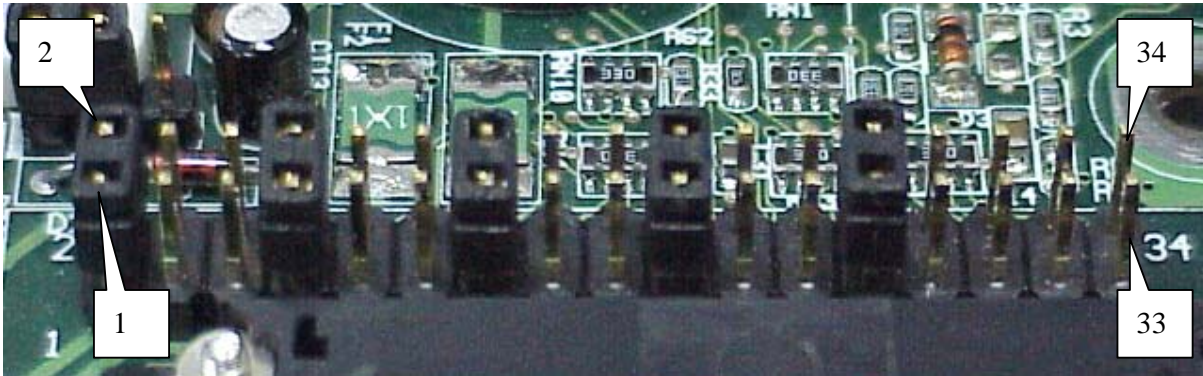
COM	Function	Jumper (SHORT)
1	*DCCD	1-2
	+5V	3-4
	+12V	5-6
2	*DCCD	7-8
	+5V	9-10
	+12V	11-12
3	*DCCD	13-14
	+5V	15-16
	+12V	17-18
4	*DCCD	19-20
	+5V	21-22
	+12V	23-24
6	*DCCD	25-26
	+5V	27-28
	+12V	29-30
	NC	31-32
	NC	33-34

Note:

OPEN

SHORT

6.2 B55(POS500/505) Jumpers
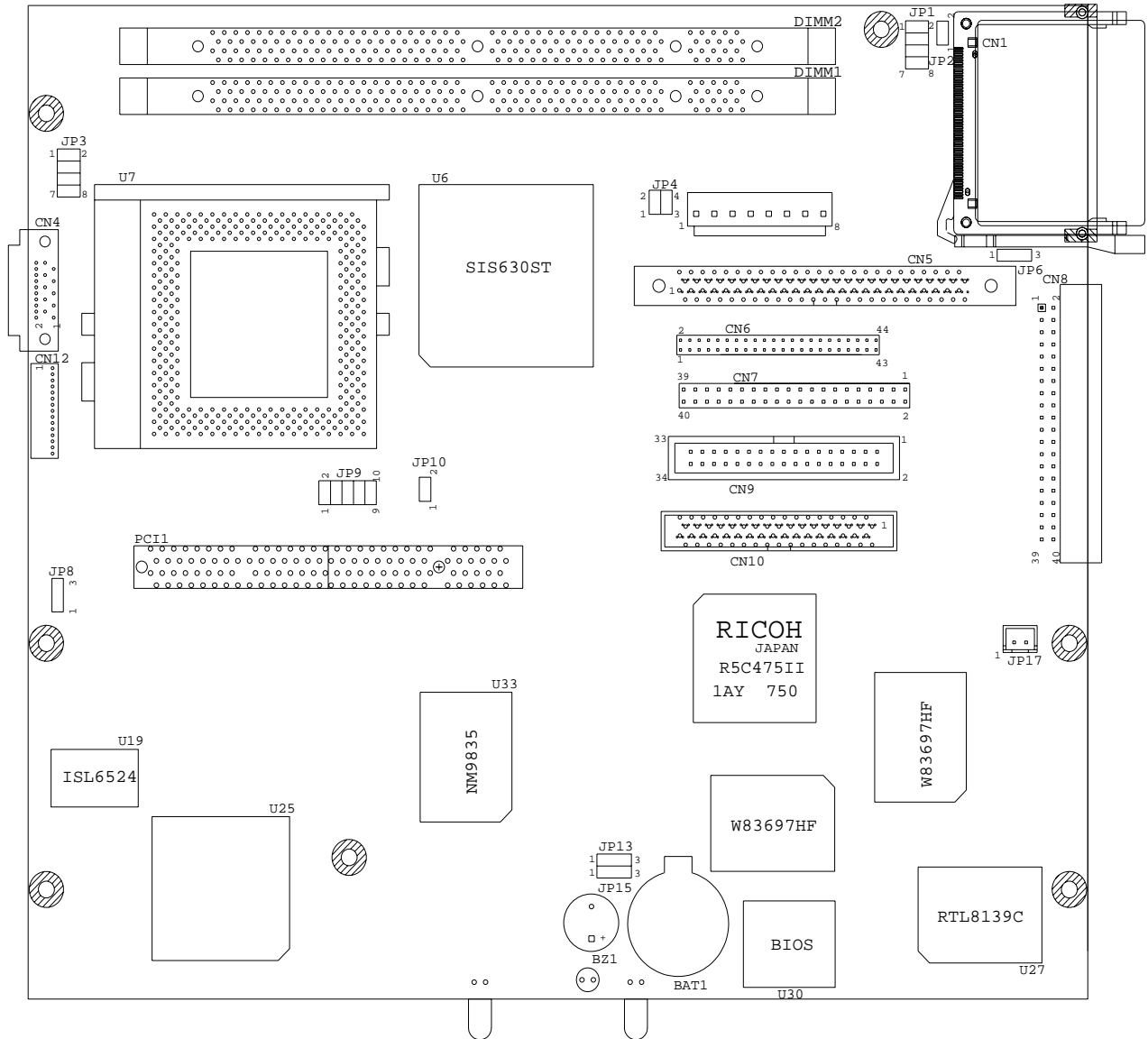
6.2.1 Power Supply Type

* Factory Default Setting

Function	JP6
*ATX Power	2-3 (SHORT)
AT Power	1-2 (SHORT)

6.2.2 CMOS Operation Mode

Function	JP13 (SHORT)	JP15 (SHORT)
*CMOS Normal	1-2	1-2
CMOS (Clear)	2-3	2-3

Note:

OPEN
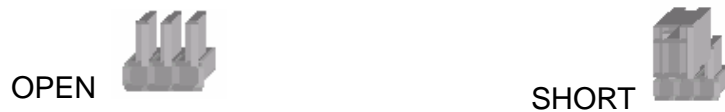
SHORT

7.B55 I/O Board Jumper Setting

JP2

JP1
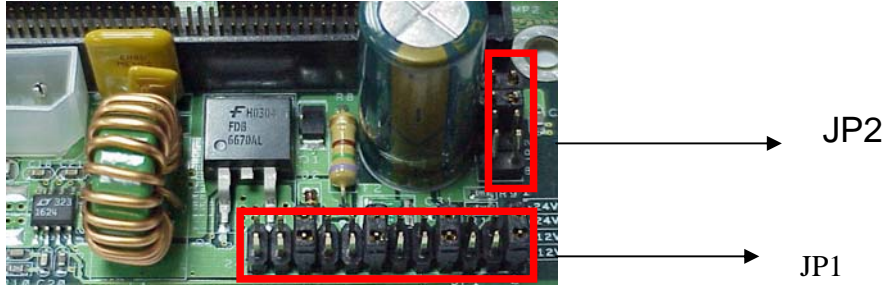
7.1 Pin1/Pin9 Function of COM Port Selection: JP1

23

1

2

24
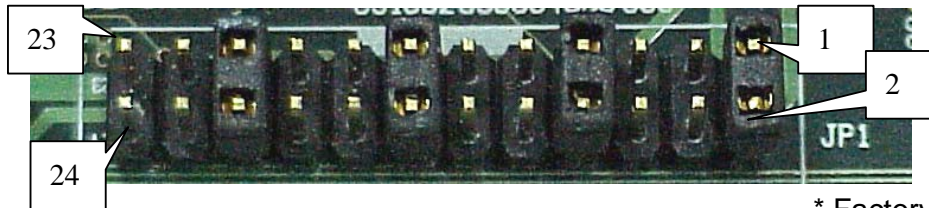
* Factory Default Setting

COM	PIN	Function	Jumper (SHORT)
1	1	*DCCD	1-2
		12V	3-4
		5V	5-6
1	9	*RI	7-8
		12V	9-10
		5V	11-12
6	1	*DCCD	13-14
		12V	15-16
		5V	17-18
6	9	*RI	19-20
		12V	21-22
		5V	23-24

7.2 Cash Drawer Power Selection: JP2

Function	Jumper (SHORT)
*24V	1-2, 3-4
12V	5-6, 7-8

Note:

OPEN

SHORT