User's Manual

RichPOS 3600
12”/15”/17”
P4 High-Performance POS system

Copyright Notice

Safety and Warranty

1. Read these safety instructions carefully.

2. Keep this user's manual for later reference.

3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.

4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.

5. Keep this equipment away from humidity.

6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.

7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.

8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.

9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.

10. All cautions and warnings on the equipment should be noted.

11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.

12. Never pour any liquid into an opening. This could cause fire or electrical shock.

13. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.

14. If any of the following situations arises, get the equipment checked by service personnel:
a. The power cord or plug is damaged.
b. Liquid has penetrated into the equipment.
c. The equipment has been exposed to moisture.
d. The equipment does not work well, or you cannot get it to work according to the user’s manual.
e. The equipment has been dropped and damaged.
f. The equipment has obvious signs of breakage.

15. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4°F) OR ABOVE 60° C (140° F). IT MAY DAMAGE THE EQUIPMENT.

Table of Content

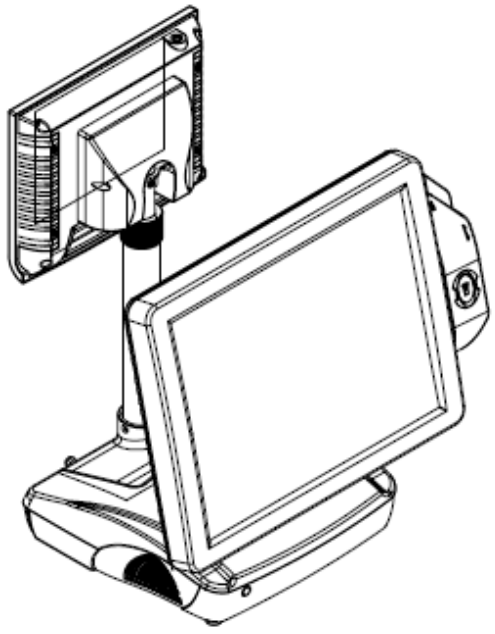
Chapter 1

Introduction

RichPOS-3600 Introduction

RichPOS 3600 is a decent solution for high-performance-required application. The integrated and modulized design of the system effectively increases the reliability of the product and therefore makes it an optimal choice for retail or any public service markets.

- **System:** Equipped with Intel 915GM and ICH6M chipsets plus high-speed CPU support (up to Pentium M 2.13GHz), RichPOS-3600 is capable of handling a high capacity of data efficiently.
- **Housing:** The strong aluminum housing not only dissipates the heat inside the system but decreases the level of possible damage from dropping, also assuring the compliance to EMI radiation testing.
- **Display**: The LCD display can be tilted at multiple angles for ease of use.
- **Extensibility:** RichPOS-3600 is designed with sufficient I/O interfaces which allow the unit to extend its functionality with a variety of additional devices, such as Magnetic Card Reader, 2nd VFD/LCD customer display, Cash drawer, Biometric reader (ex.: finger print reader) and a wide selection of USB devices (all available upon request.)

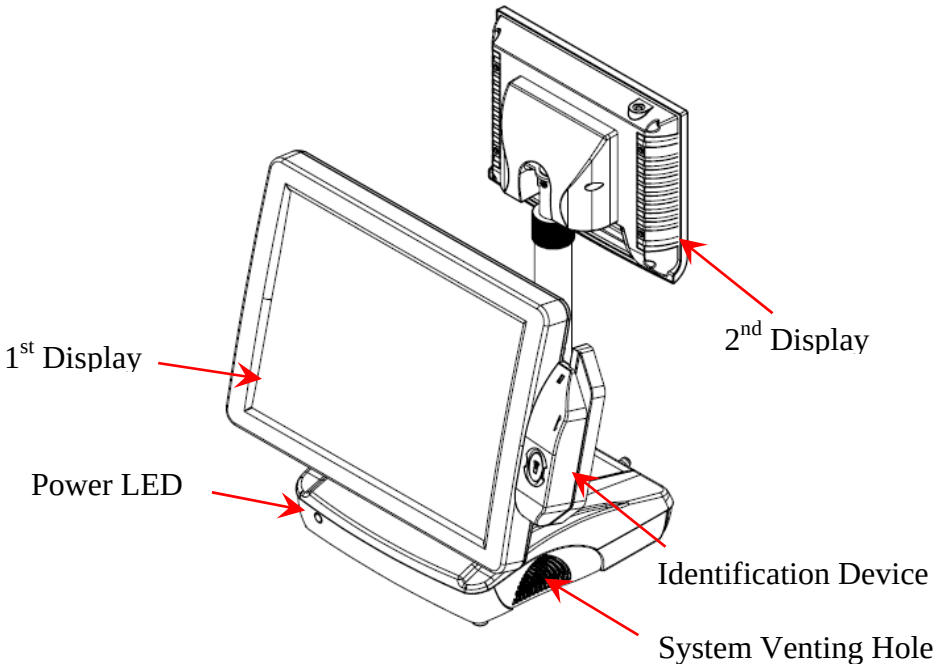


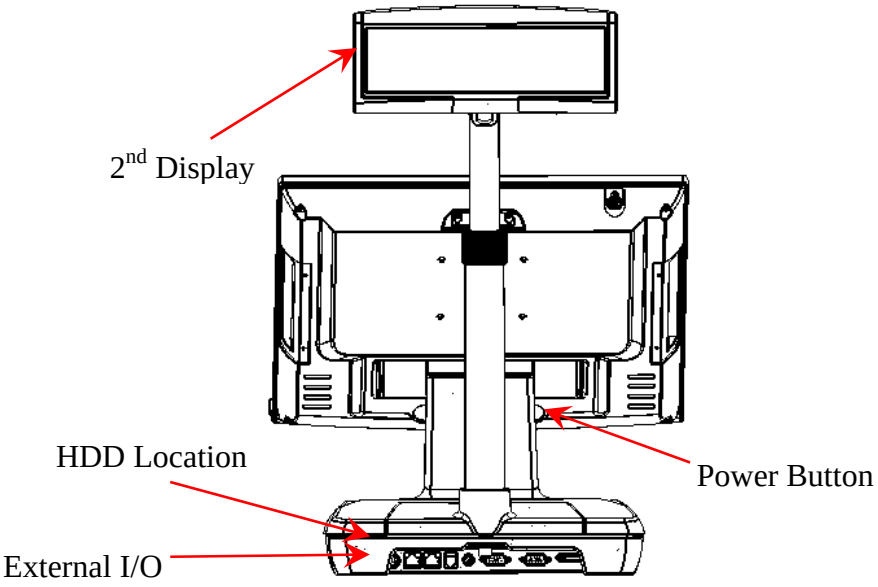
RichPOS-3600 W/2nd display

RichPOS-3600 W/VFD

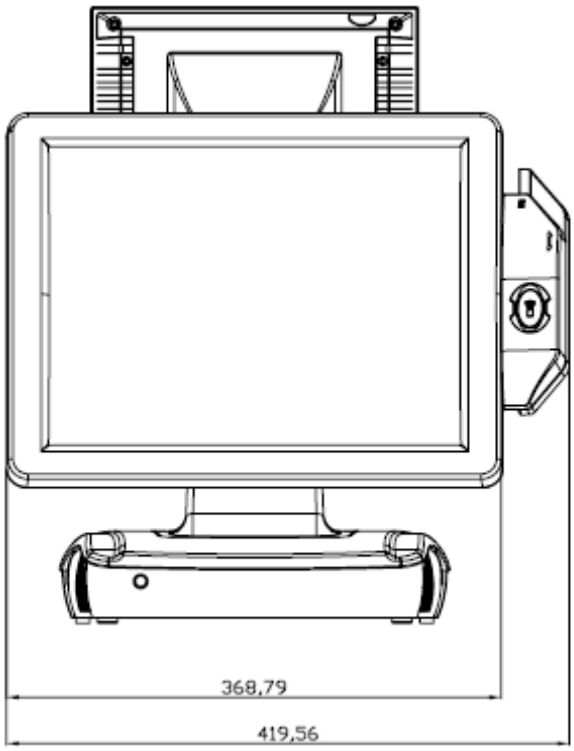
A Quick Tour for RichPOS-3600

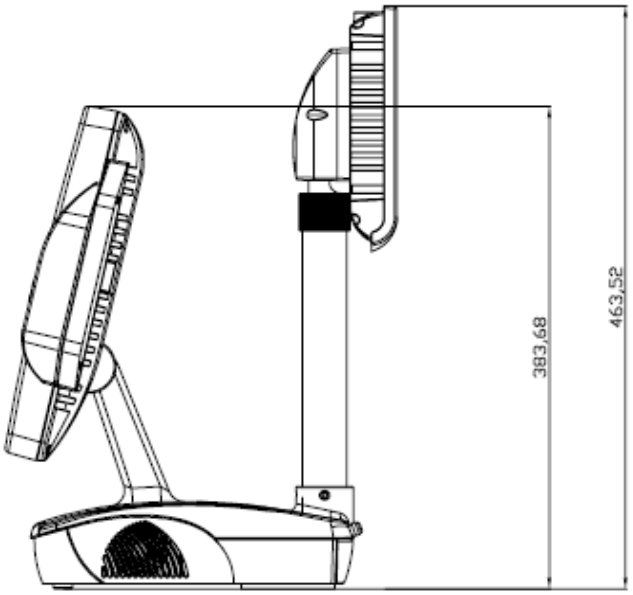
Before you start, take a moment to become familiar with **RichPOS-3600**.

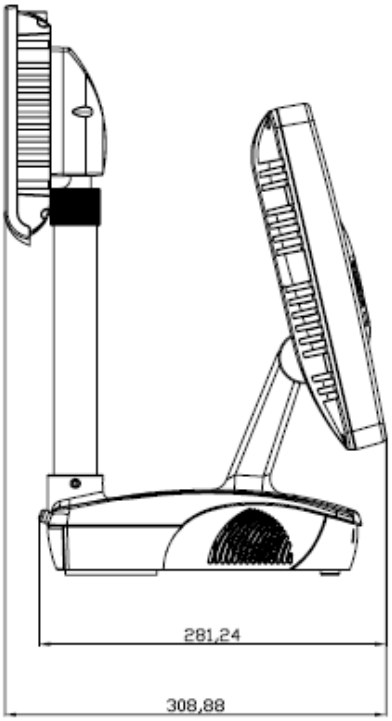




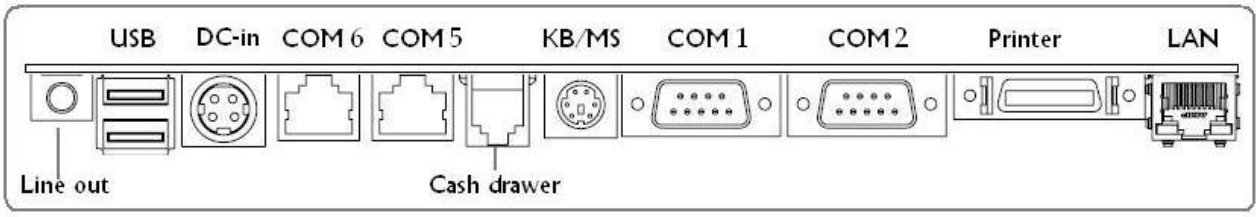
RichPOS-3600 Dimension







Rear I/O Panel



I/O Port	Connector Type	Description
Line Out	Earphone connector	Connect the speakers to this port
USB	USB type A connector	Standard USB connector for external device
DC-in	DC Power connector	Connect the power adaptor to this port
COM5、COM6	VFD / RJ45 connector	This RJ45 port can be used to attach a VFD customer display or serve as an additional serial port (switching cable provided).
Cash Drawer	RJ11 connector	Cash Drawer Connector, 12 V actuation support
KB / MS	PS2 connector	Connect the keyboard or mouse to this port
COM1、COM2	D-SUB 9 connector	The serial ports COM1/COM2/COM5/COM6 can be used to connect devices such as a printer or a fax/modem.
Printer	SCSI Ribbon 26pin	A switching cable provided to connect printer with standard LPT (D-SUB 25 pin) connector.
LAN	RJ45 connector	Connect RichPOS-3600 to the Ethernet

Packing List

- RichPOS-3600 Main System x 1
- Power Adapter x 1
- Driver & Manual CD x 1
- AC Power Cord x 1
- COM port switching cable (RJ45 to D-SUB 9 pin) x 2
- Printer switching cable (SCSI 26 pin to LPT) x 1

Optional:

- 2nd LCD Display
- Finger Print Reader
- RFID
- MCR
- VFD Customer Display
- Wireless LAN Module

Chapter 2

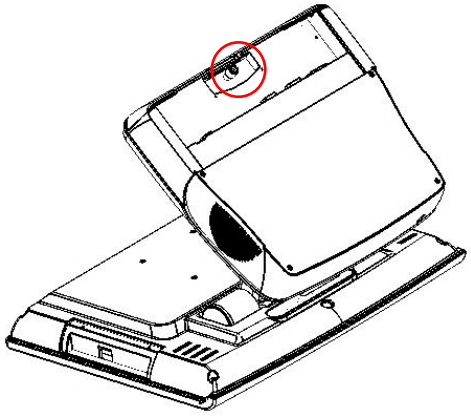
Hardware Installation and Upgrading

Do not remove the rear cover until you have verified that no power is supplied to the system. Power must be switched off and the power cord must be unplugged. Every time you service the system, you should be aware of this.

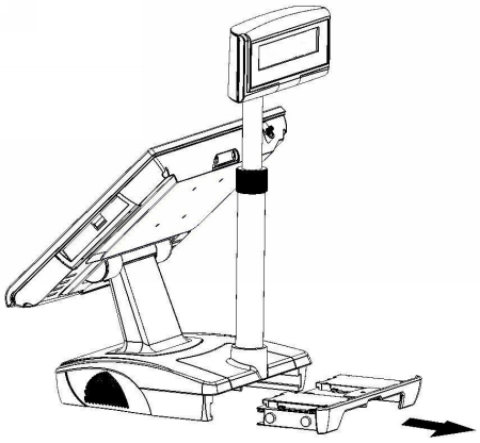
2.5” Hard Disk Drive Installation

1. **Turn off power and remove power cord from the system**

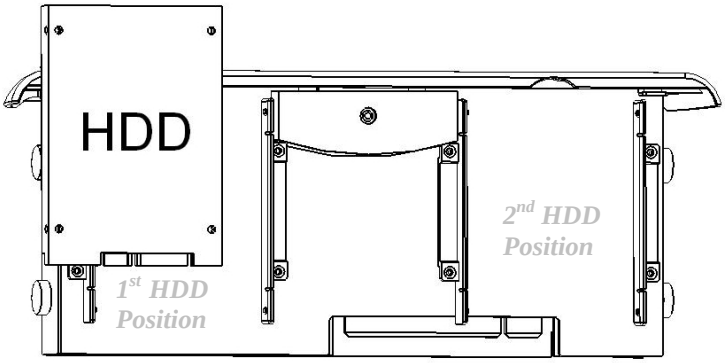
2. **Unscrew the HDD tray at the bottom of the unit**



3. **Pull the HDD tray out**



4. **Place HDD on the tray with PCB side upward (no screw needed).**



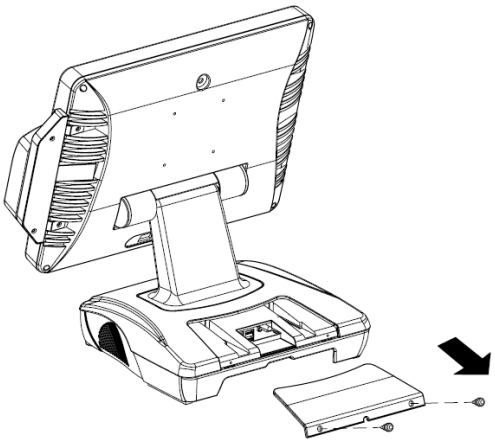
5. **Slide in the HDD tray back to the system (no cabling needed).**

7. **Fix the HDD tray with the screw.**

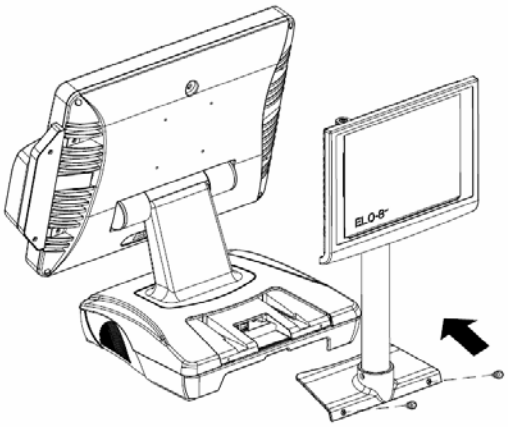
8. **Connect the power cord to the system.**

2nd Display (LCD/VFD) Installation

1. **Remove the plastic cover above the rear I/O panel**

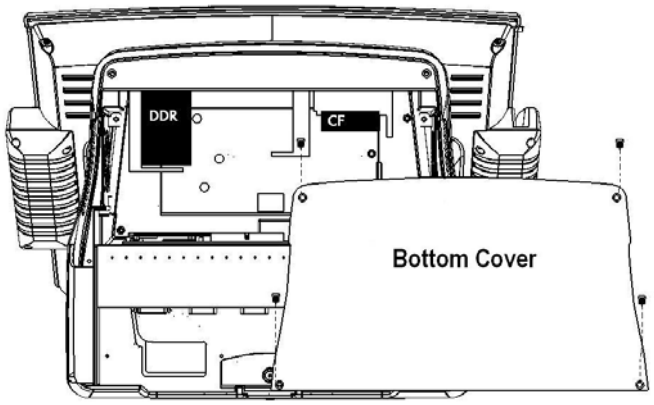


2. **Slide in the 2nd display set and screw it on the system (no cabling needed)**



Memory (DDRII RAM) / Compact Flash Card (CF) Installation

1. **Unscrew and remove the bottom cover**



2. **Install the DDRII RAM or CF you require**

3. **Restore the bottom cover**

MCR Parameter Modification

This option is for users who need to customize the MCR parameters for a particular task. Some of the useful parameters include:

The selection of country code, other than the default English.

The choice of track combinations.

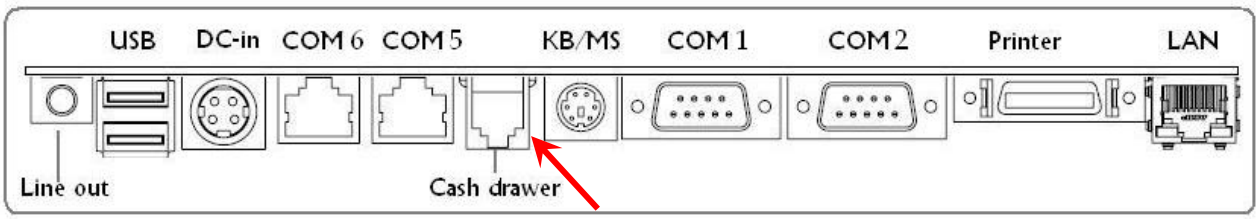
The preamble/post amble codes.

The MCR parameters can be modified by using the supplied utility program.
The utility can be found on the CD that came with your system in the “Utilities” folder. The program name is msr_v12_win.zip.

Cash Drawer Installation

Before connecting the cash drawer to the **RichPOS-3600**, please make sure the drive voltage and cable pin assignment of the cash drawer matches the definition of the cash drawer port of **RichPOS-3600**. Please refer to **page 46** for more information.

Plug cash drawer cable into the cash drawer port.



Note: If the cash drawer cannot be detected by the system, please refer to **troubleshooting.**

The default driving voltage of the solenoid is DC+12V. It can be adjusted to DC +5V by switching the jumper setting on CN5. Please refer to **page 46** for more information.

Two ports are used for drawer operation: 2Eh (index port) and 2Fh (data port). A test program is supplied (\Utility\POS Utility\Cash Drawer\GPO\GPO0.exe). For Linux and Windows, source code of which is available on request by software developers.

Chapter 3

Software Installation and Setup

Driver Installation

RichPOS-3600 comes with a variety of drivers for different operating systems.

You may find the system CD with all the necessary drivers and utilities.

Please follow this installation sequence.

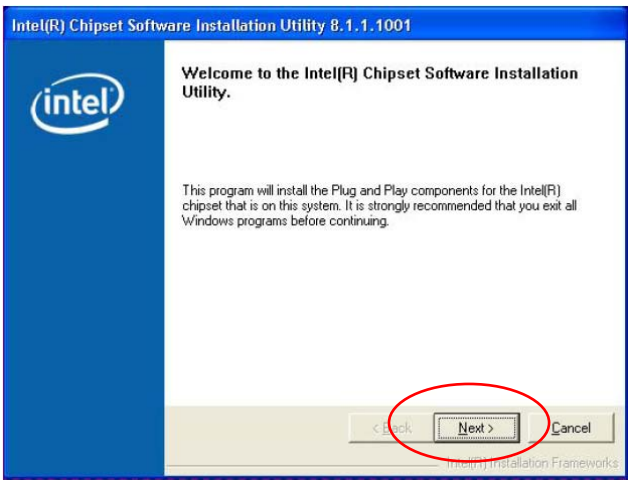
Driver installation sequence:

Chipset Driver -> VGA Driver -> LAN Driver -> Audio Driver ->Touch Tools

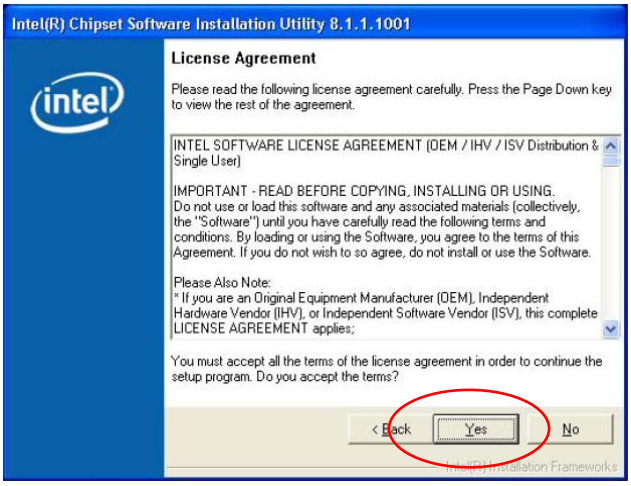
The reason to follow our sequence is that IRQ settings will be changed by Windows 2000 and XP to non supported values, and you may encounter unnecessary problems later.

Intel Chipset Driver Installation

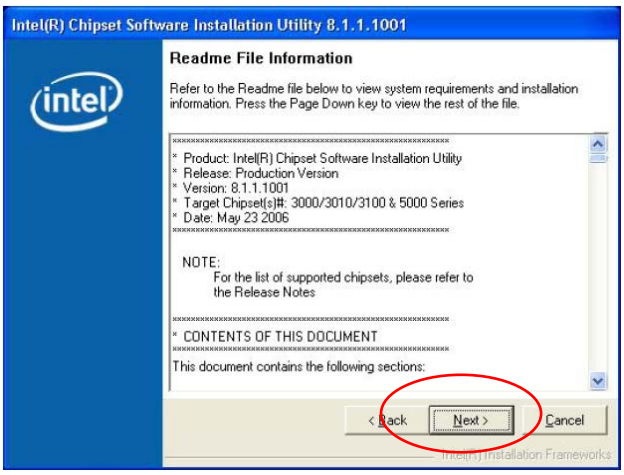
1. Insert the CD into your CD ROM Drive.
2. Locate the folder of **D:\DRIVER\WIN2K&XP\CHIPSET**
3. Open **infinst_autol.exe**



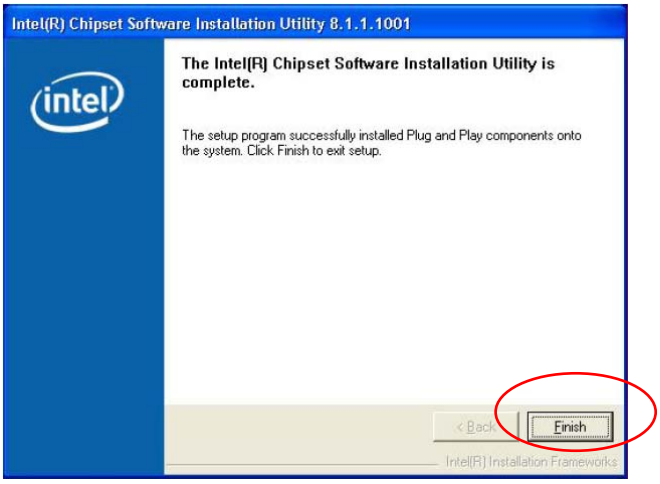
4. Click **Next**.



5. Read the License Agreement and click **Yes**.



6. Click **Next** and the drivers for the Intel Chip set will install.

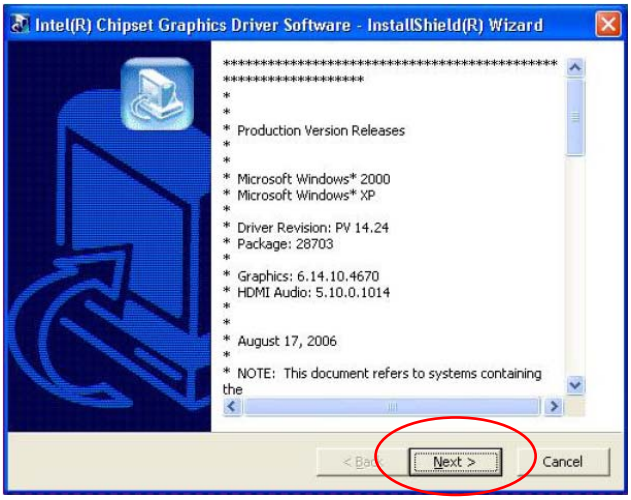


7. When the 'Setup COMPLETE' message appears click **Finish** to restart your computer.

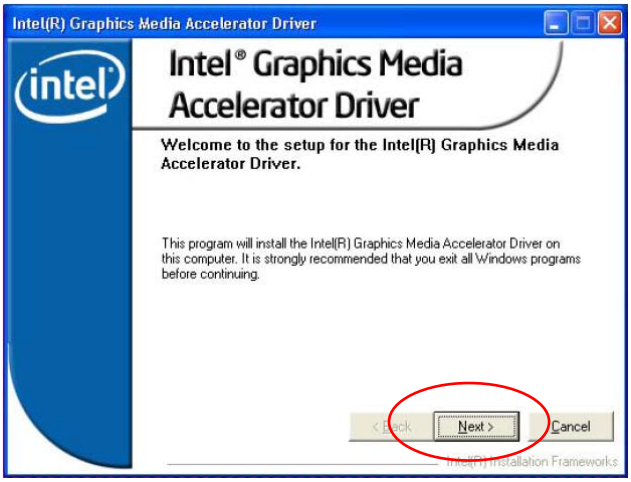
VGA Driver Installation

915GM Driver Installation for Windows 2000 & XP

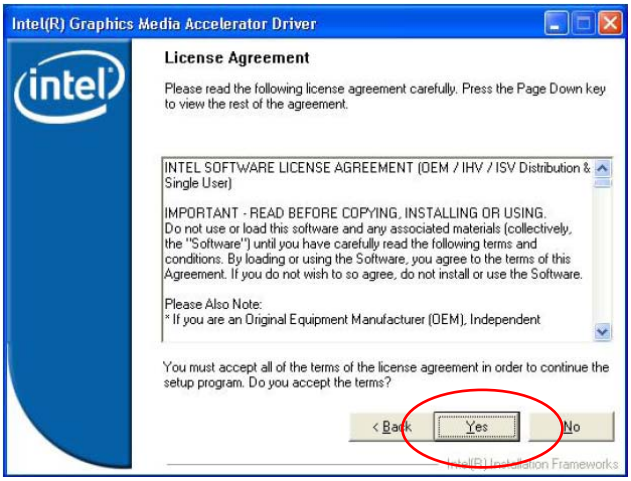
1. Locate the folder of **D:\Driver\WIN2K&XP\VGA**
2. Open **win2k_xp1424.exe**



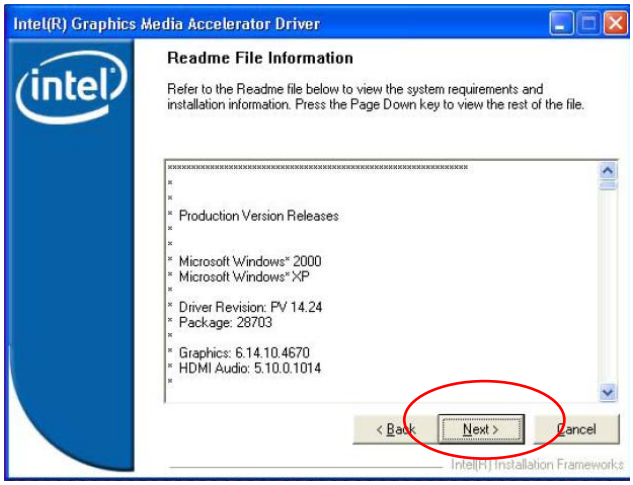
3. Select **Next** to continue.



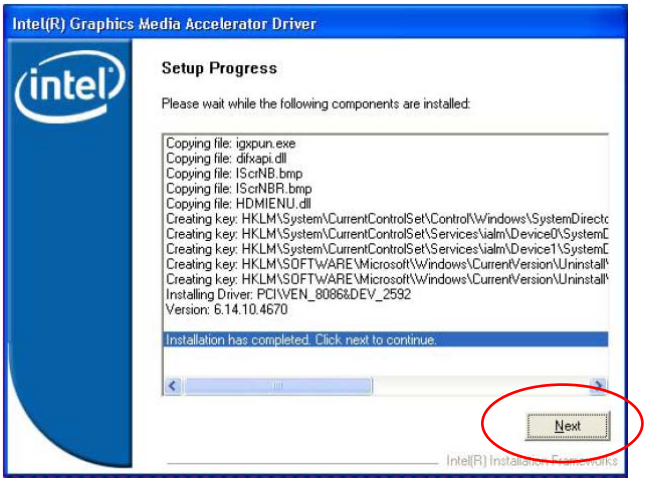
4. Select **Next** to continue.



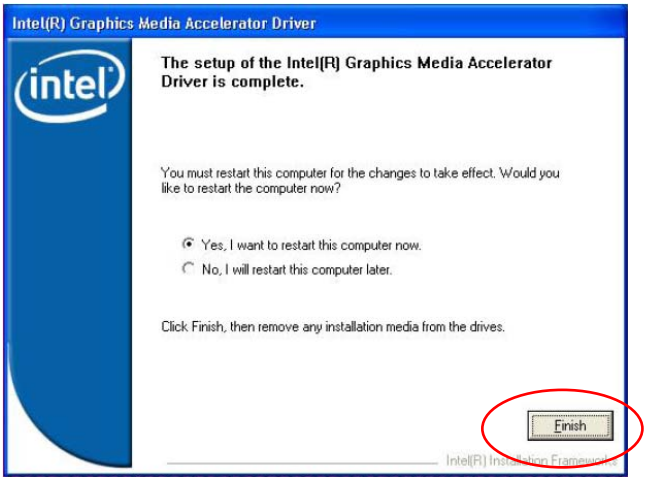
5. Read the License Agreement and click **Yes**.



6. Click **Next** to see the setup progress.



7. Select **Next** to continue.



8. Click **Finish** to complete the installation procedure and restart the system.

Enable Second LCD Panel Setting for Windows 2000 & XP

After you have installed the VGA driver, you must adjust the settings as follows.

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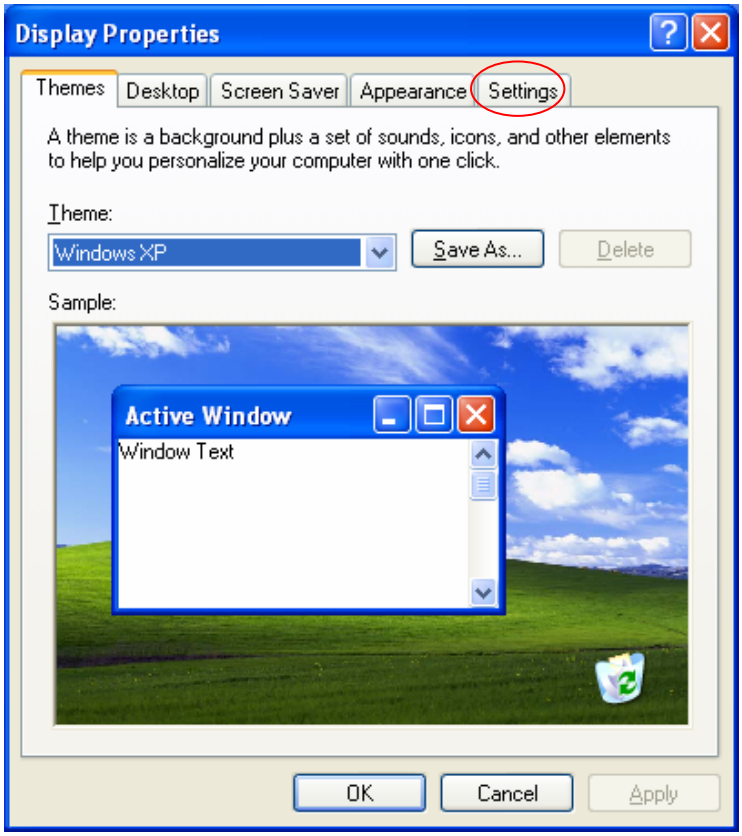
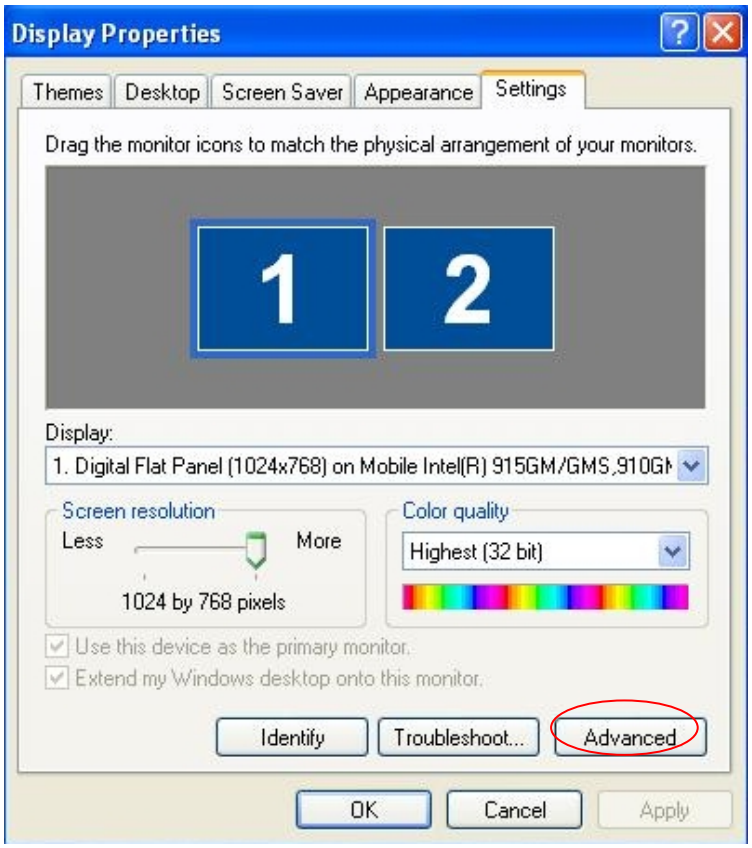
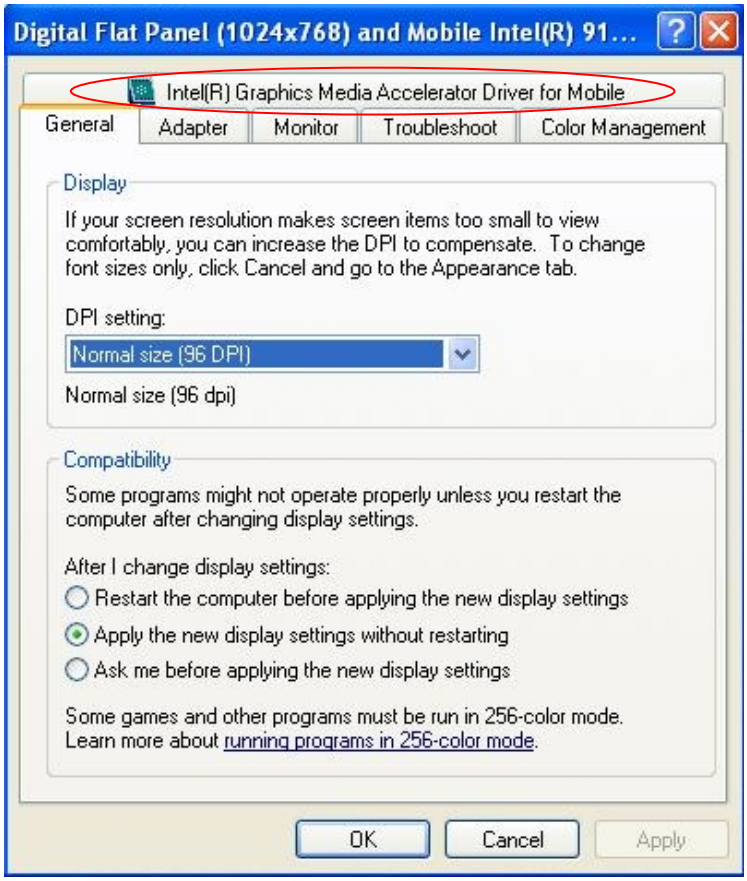
1. Right click your mouse anywhere on the desktop and then click **properties**.



2. Click the **Settings** tab.

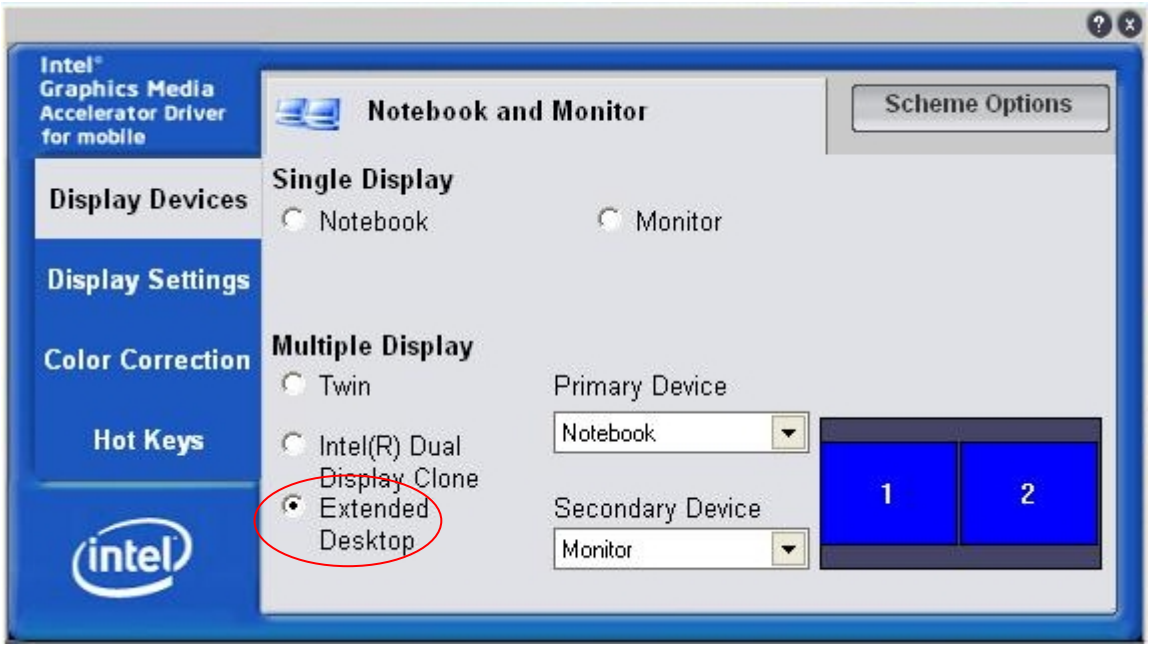


3. Click **Advanced**.

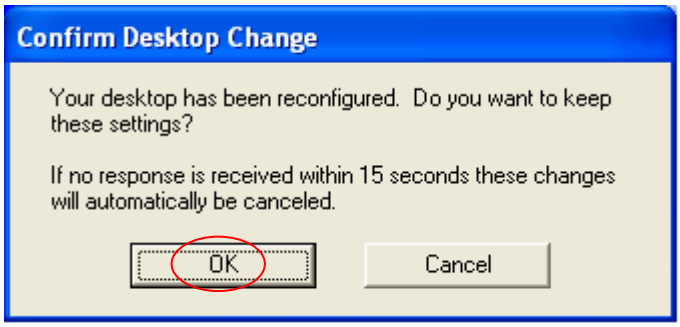


4. Click **Intel(R) Graphics Media Accelerator Driver for Mobile**.

5. Click **Graphics Properties**.



6. Click **Extended Desktop** and select **Notebook** for primary device, **monitor** for secondary device.



7. Click **OK.**

8. Select the second LCD panel. This is done either by clicking on the number 2 or selecting from the dropdown menu.

   For the second LCD panel make sure that Extend my Windows desktop onto this monitor is selected.

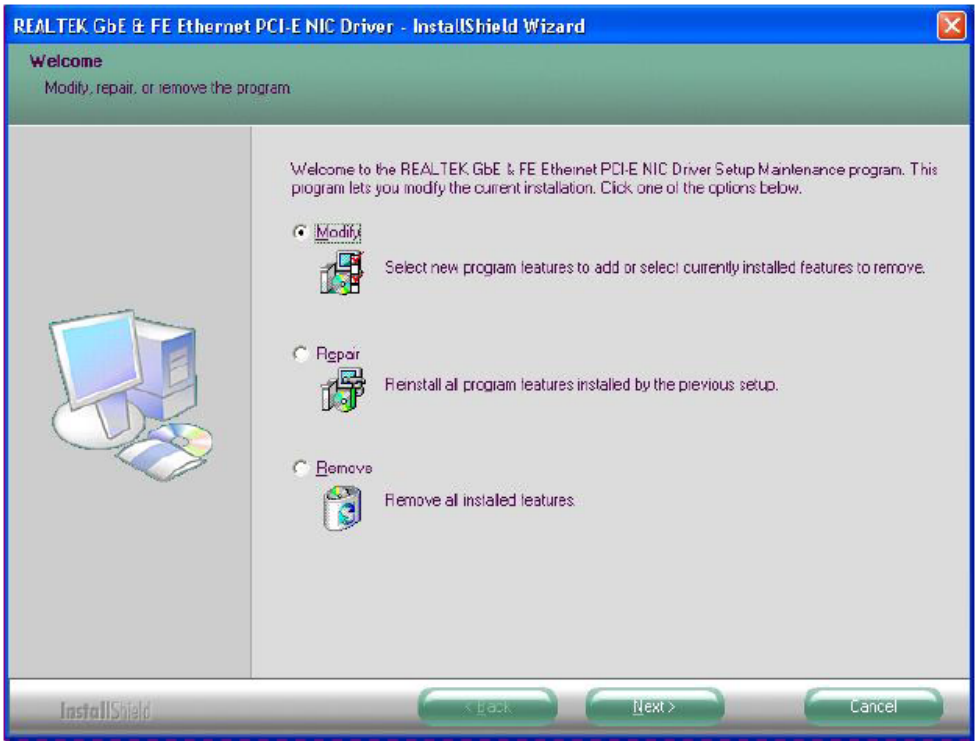
9. Click **Apply** then click **OK** to finish the settings.

Note. During boot sequence "**No Sync**" will appear on the second LCD panel.
The boot sequence can take a minute or so when a second LCD panel is installed.

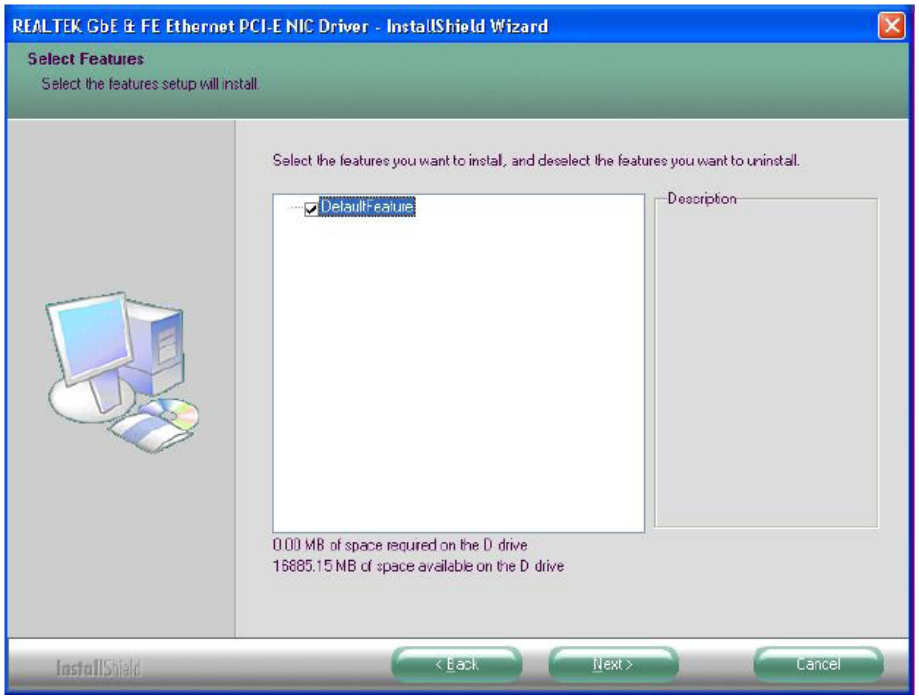
LAN Driver Installation

LAN Driver Installation for all Windows Operating Systems.

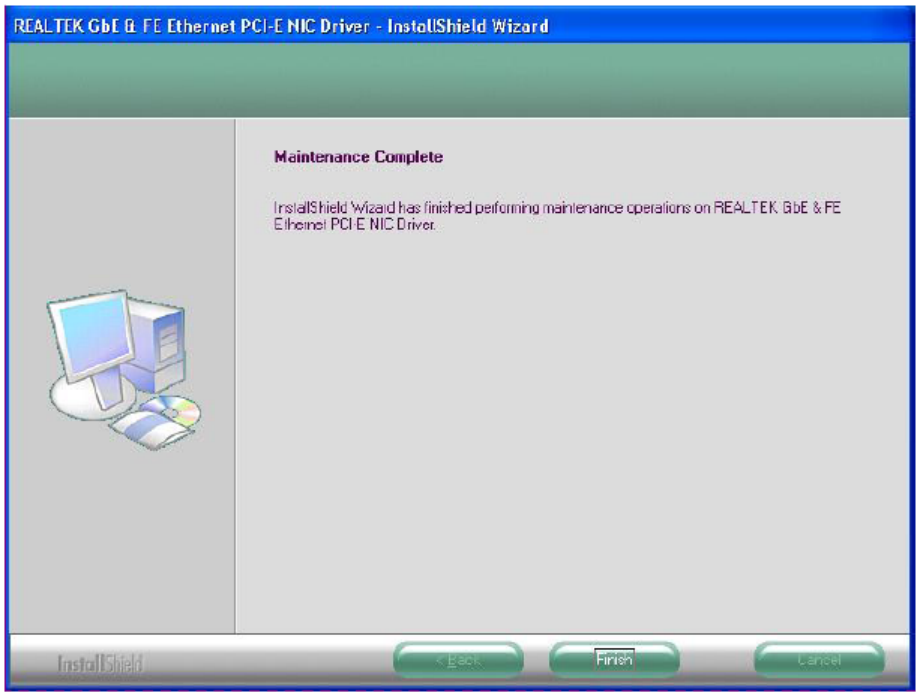
1. Locate **D:\Driver\WIN2K&XP\LAN\RTL8111B**
2. Double click **Setup.exe**.



3. Click **Next** to continue



4. Click **Next** to continue

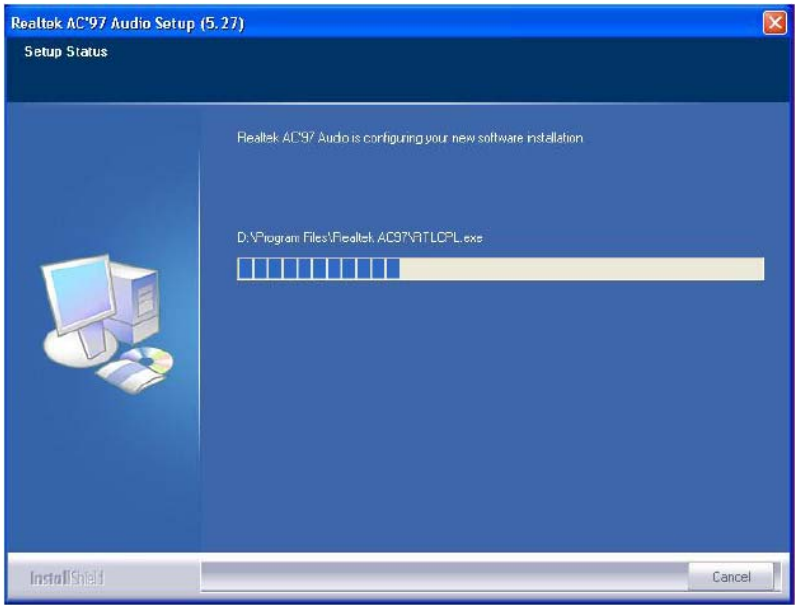


5. Click **Finish** to complete the installation procedure.

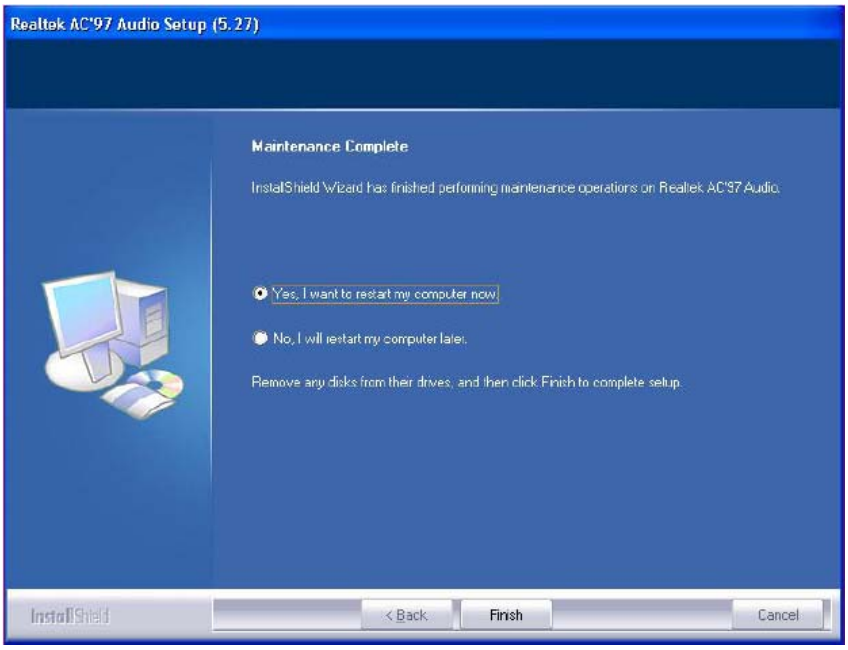
Audio Driver Installation

Audio Driver Installation for all Windows Operating Systems.

1. Locate **D:\Driver\WIN2K&XP\AC97\ WDM_A391**
2. Double click **Setup.exe**.



Note: If you receive this warning message, please click **Continue Anyway** to proceed.



3. Click **Finish** and restart the system.

ELO Touch Tools Installation

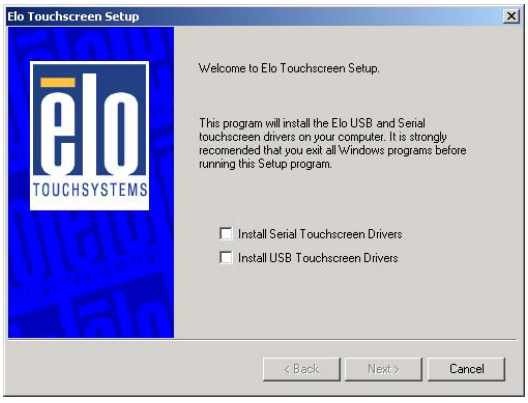
ELO Touch Tools Installation for Windows 2000 and XP

1. Locate **D:\Utility\TOUCHSCREEN\ELO Touch**
2. Select the relevant ELO folder for the operating system that you are using.

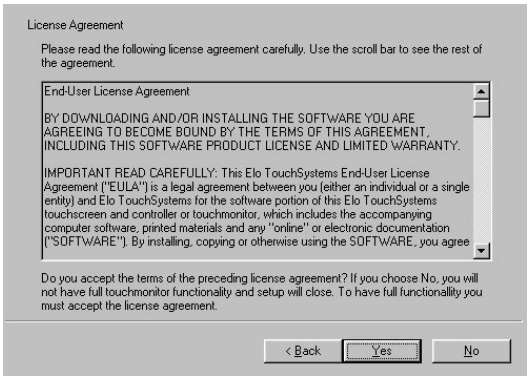
Example. If you are installing for a Windows 2000 or XP then select **Elo Touch 2K_XP**

3. Open **Setup.exe**

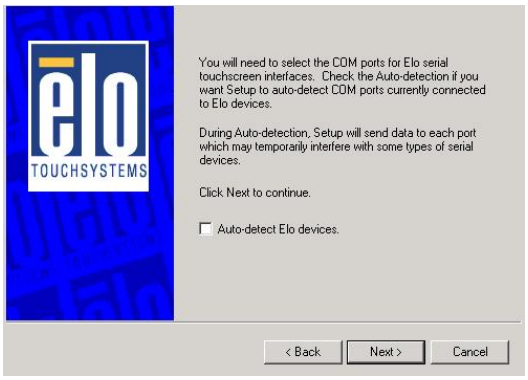
4. Click **Next**



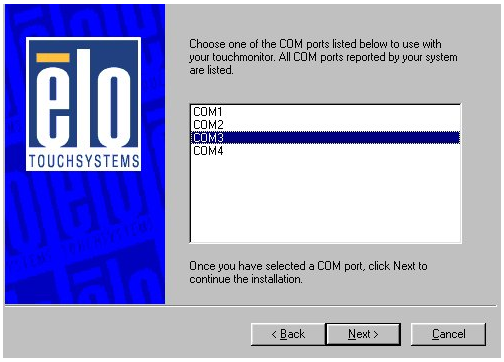
5. Check “Install serial Touch screen Drivers.” And Click **Next**.



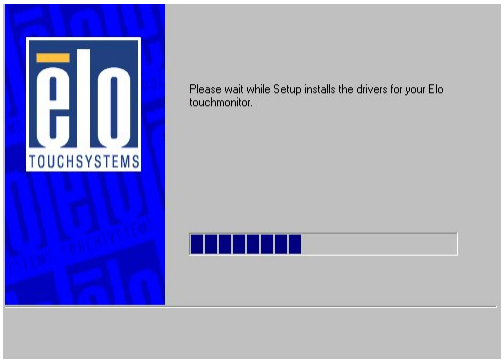
6. Read the ***"License Agreement"*** and click **Yes** if you accept it.



7. Select "Auto-detect Elo devices" and click **Next.**



8. Select the COM port for the touch monitor. It is recommended that you select **COM3** for the touch screen, as this port is internally configured for touch operation.

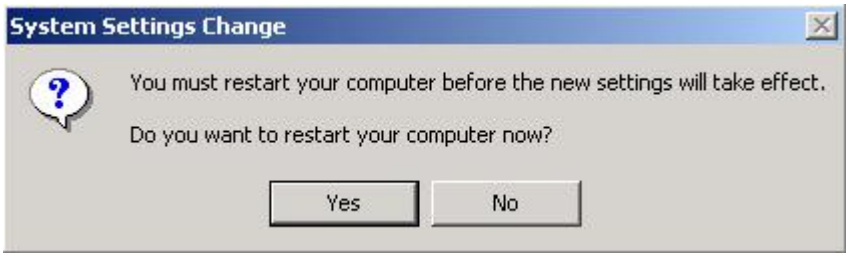


9. Wait until the ELO Touch Tools have been installed.

10. Select **"**View ELO touch screen control panel" and click **Finish**.

IT MAY BE NECESSARY TO RESTART YOUR COMPUTER TO UTILIZE YOUR TOUCHSCREEN FEATURES.

11. Click **NEXT** while this window appears after system finish rebooting.



12. Click **YES** to restart your computer again.

After the system finish rebooting follow the directions to calibrate ELO Touch Tools.

ELO Control Panel

This section explains the different options in the ELO control Panel.

General tab

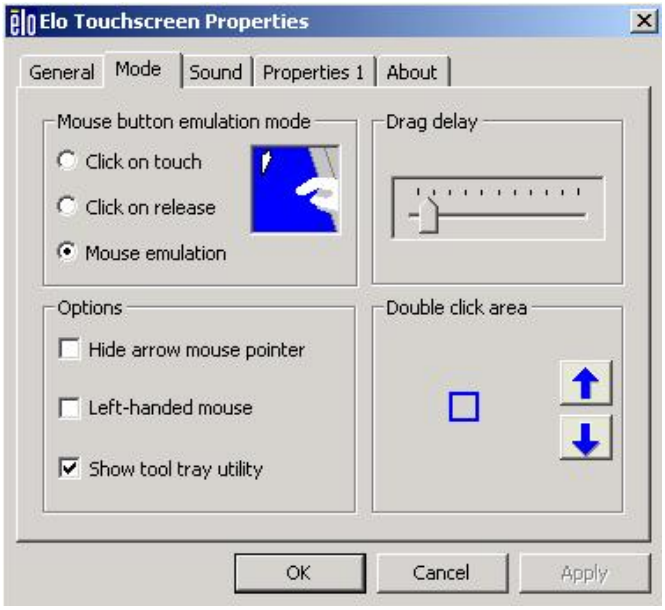
The general tab allows you to:

- Change the COM port your touch screen is set to.
- Calibrate the touch screen with the **Align** button.

Mode tab

The Buttons tab allows you to:

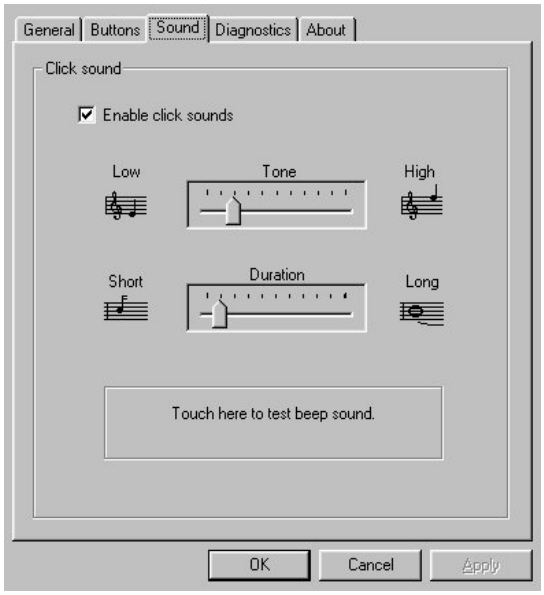
- Adjust all mouse emulation controls.
- Change cursor properties
- Enable or disable right mouse button utility.



Sound tab

The Sound tab allows you to:

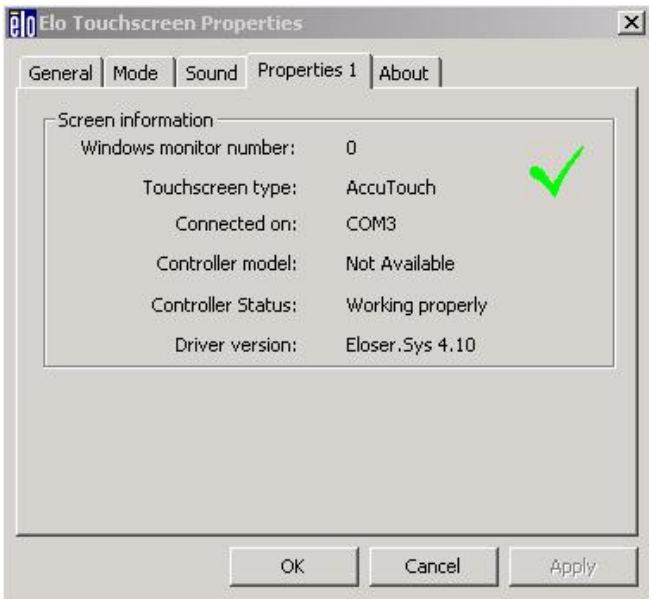
- To change sound properties for ELO touch tools.



Properties tab

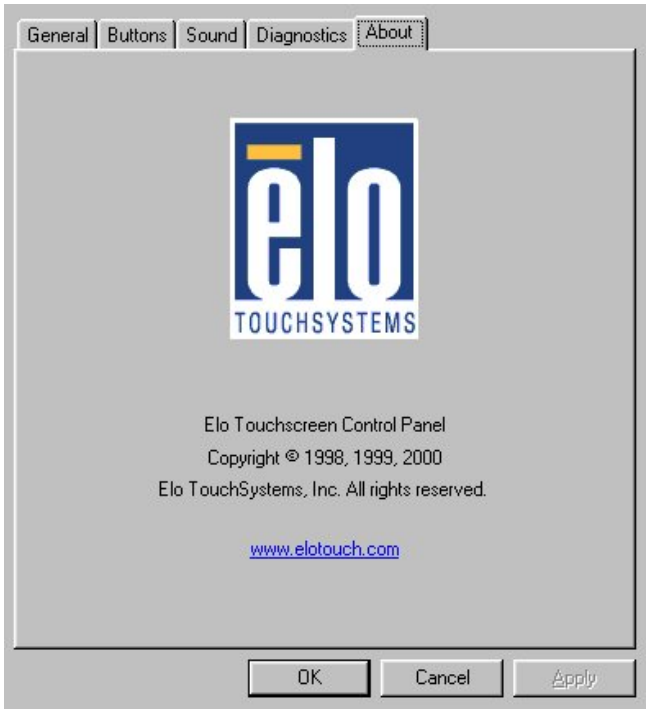
The Diagnostics tab allows you to:

- View Controller Information.



About tab

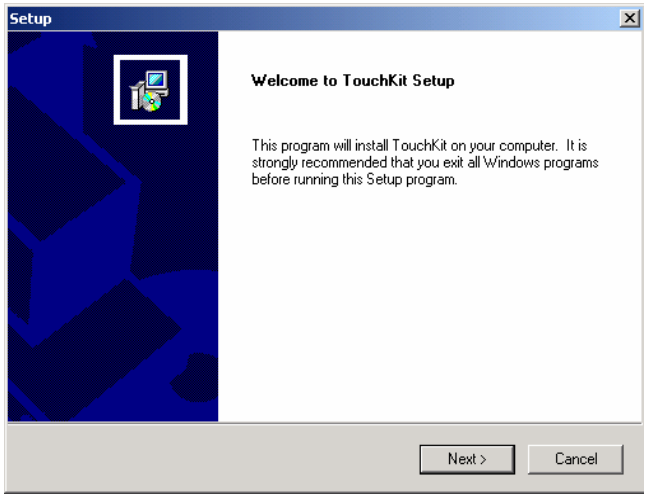
The About tab displays Information about ELO Touch systems



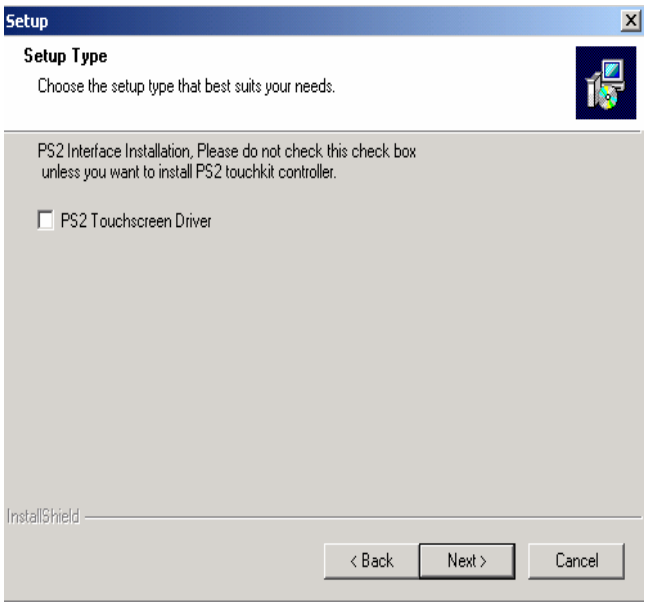
TouchKit Tools Installation

TouchKit Tools Installation for Windows Operating Systems

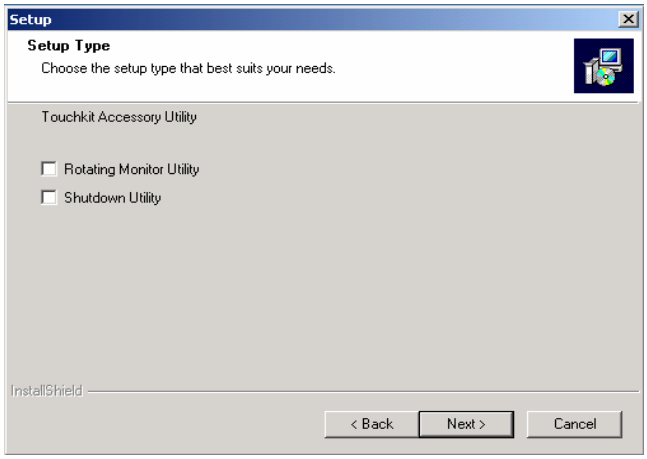
1. Locate **D:\Utility\TOUCHSCREEN\TouchKit(Fujitsu)\Driver**
2. Select the relevant folder for the operating system that you are using.
3. Open **Setup.exe**



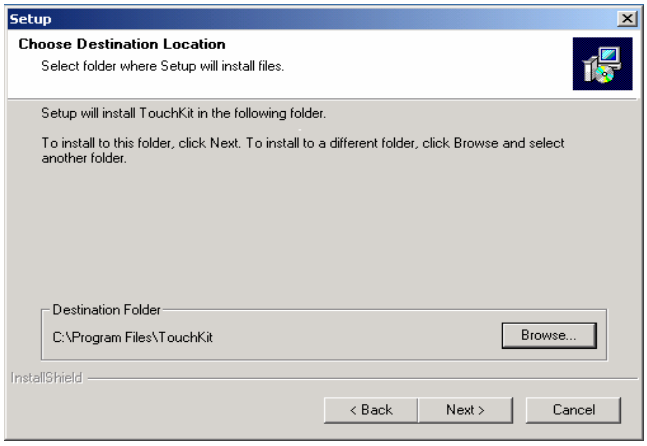
4. Click **Next**



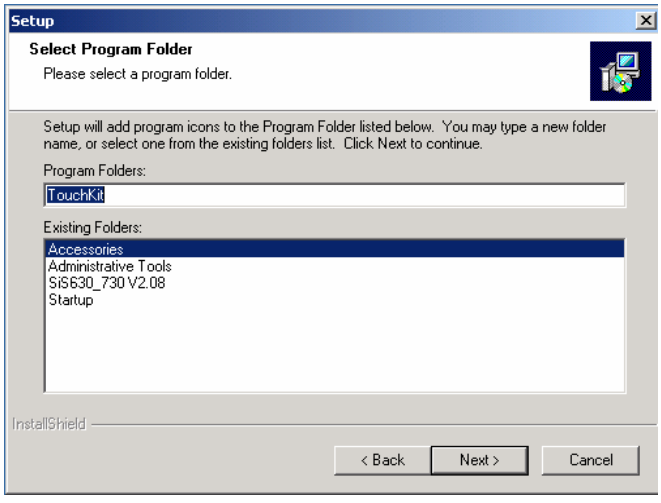
5. Click **Next**



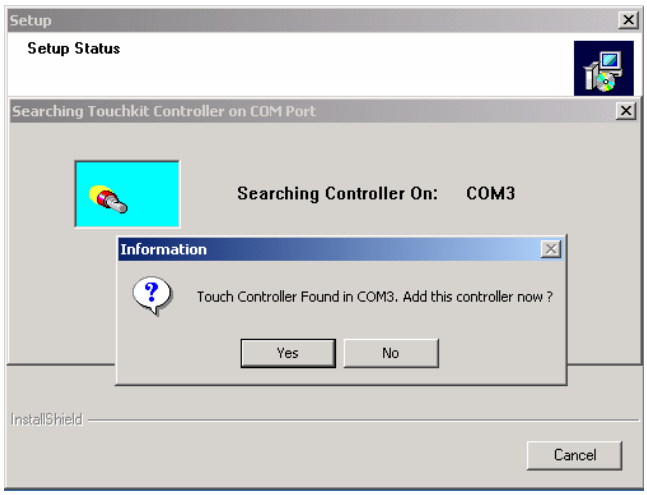
6. Click **Next**



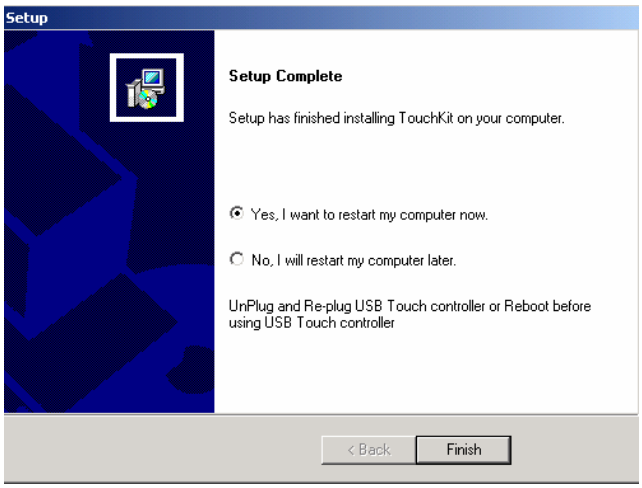
7. Click **Next**



8. Click **Next**



9. Click **Yes**



10. Click **Finish** to restart your computer again.

After the system finish rebooting follow the directions to calibrate the Touch screen.

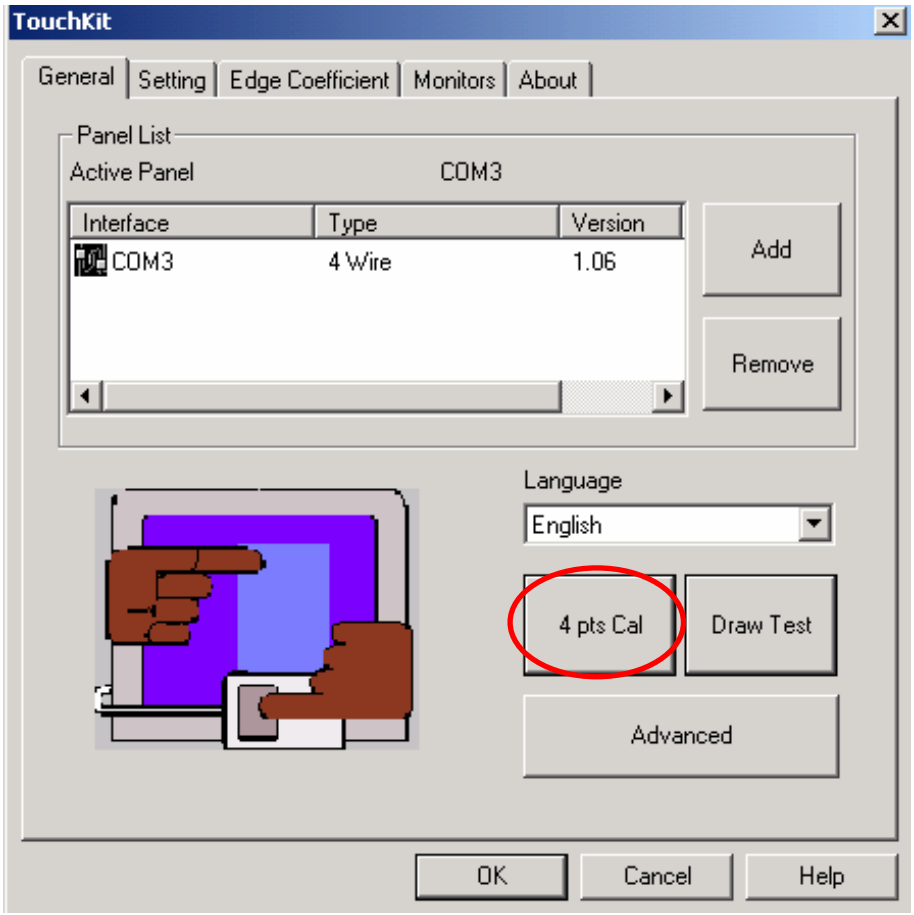
TouchKit Control Panel

This section explains the different options in the TouchKit control Panel.

General tab

The general tab allows you to:

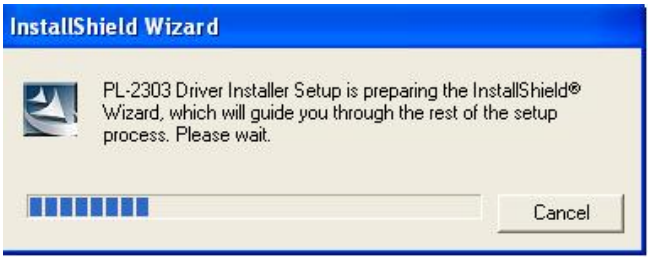
- Change the COM port your touch screen is set to.
- Calibrate the touch screen with the **4 pts Cal** button.



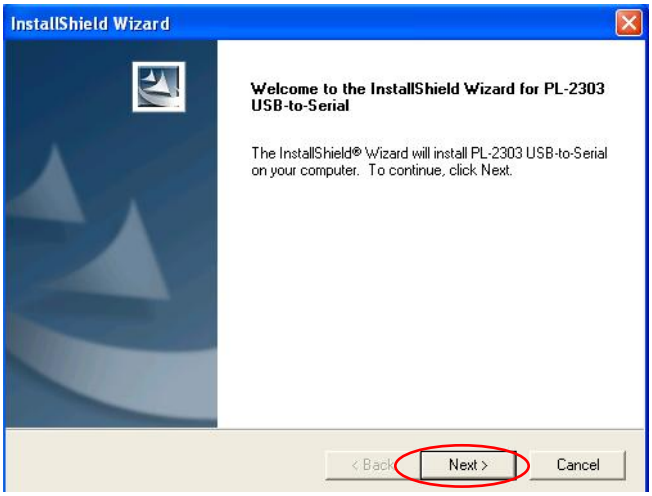
RFID Driver Installation

RFID Driver Installation for Windows Operating Systems

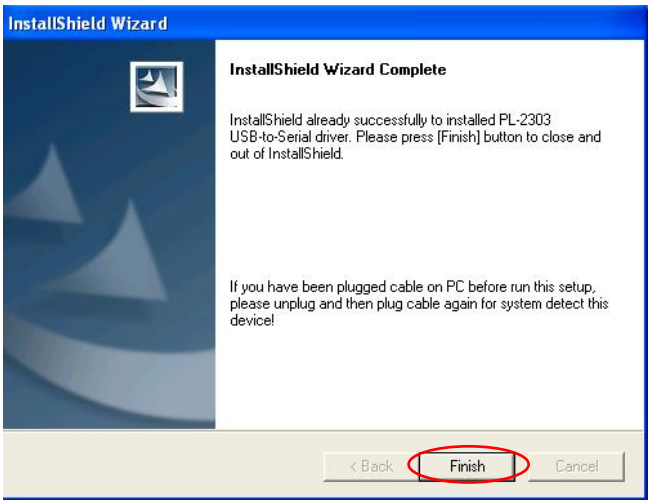
1. Locate the folder of **D:\Utility\RFID**
2. Open **PL-2303 Driver Installer.exe**



3. Wait for the next page to show



4. Select **Next** to continue



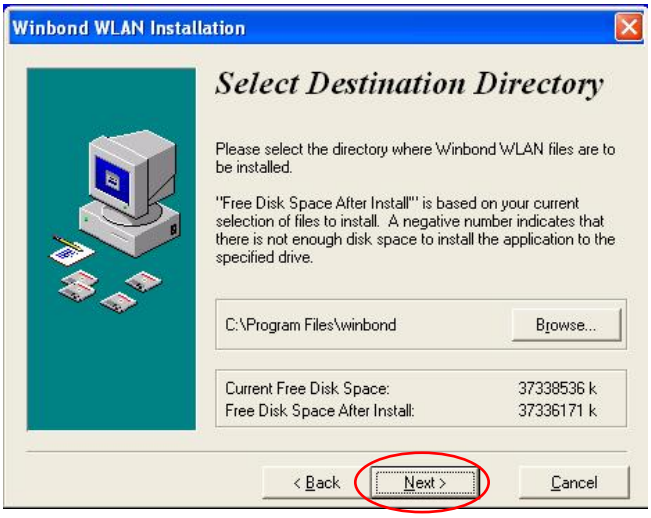
5. Select **Finish** to complete the installation

Wireless LAN Module Driver Installation

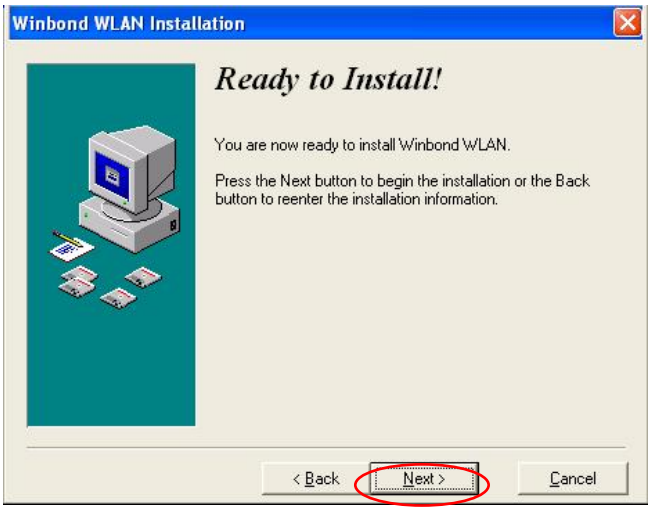
Wireless LAN Module Driver Installation for Windows Operating Systems

1. Locate the folder of **D:\Utility\Wireless Lan\WinBond**
2. Open **w89c35.exe**

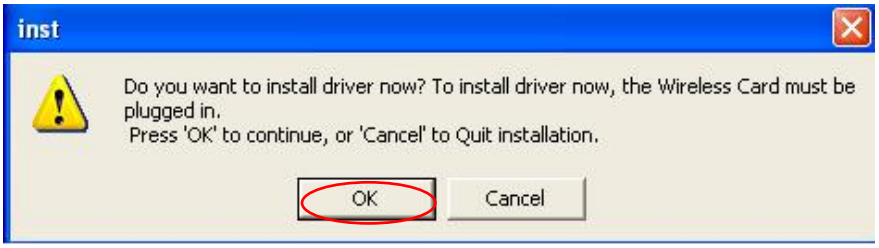
3. Select **Next** to continue



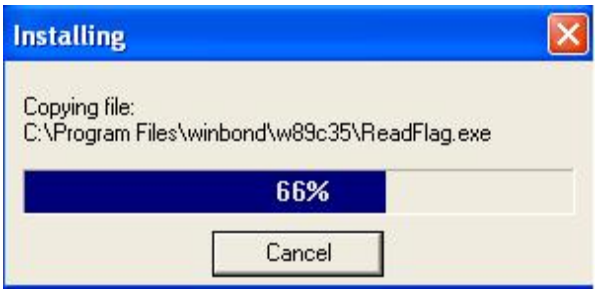
4. Select **Next** to continue



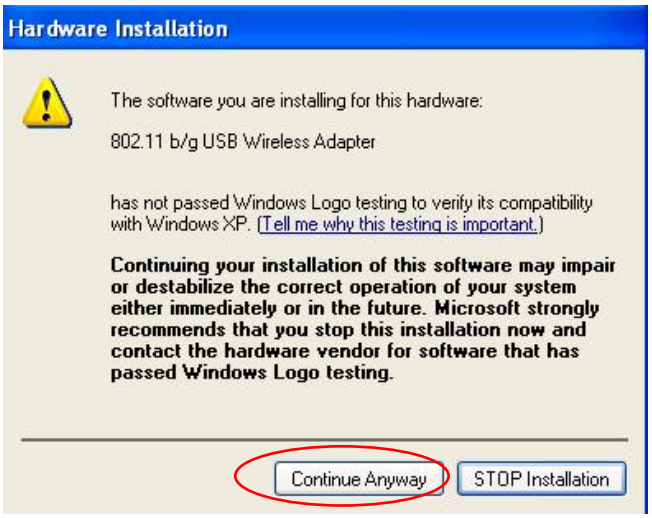
5. Select **Next** to continue



6. Select **OK** to continue



7. Wait for the next page to show



8. Select **Continue Anyway** to go to the next step

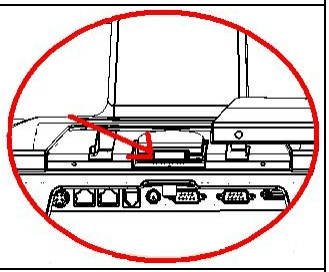
9. Select **Finish** to complete the installation

Chapter 4

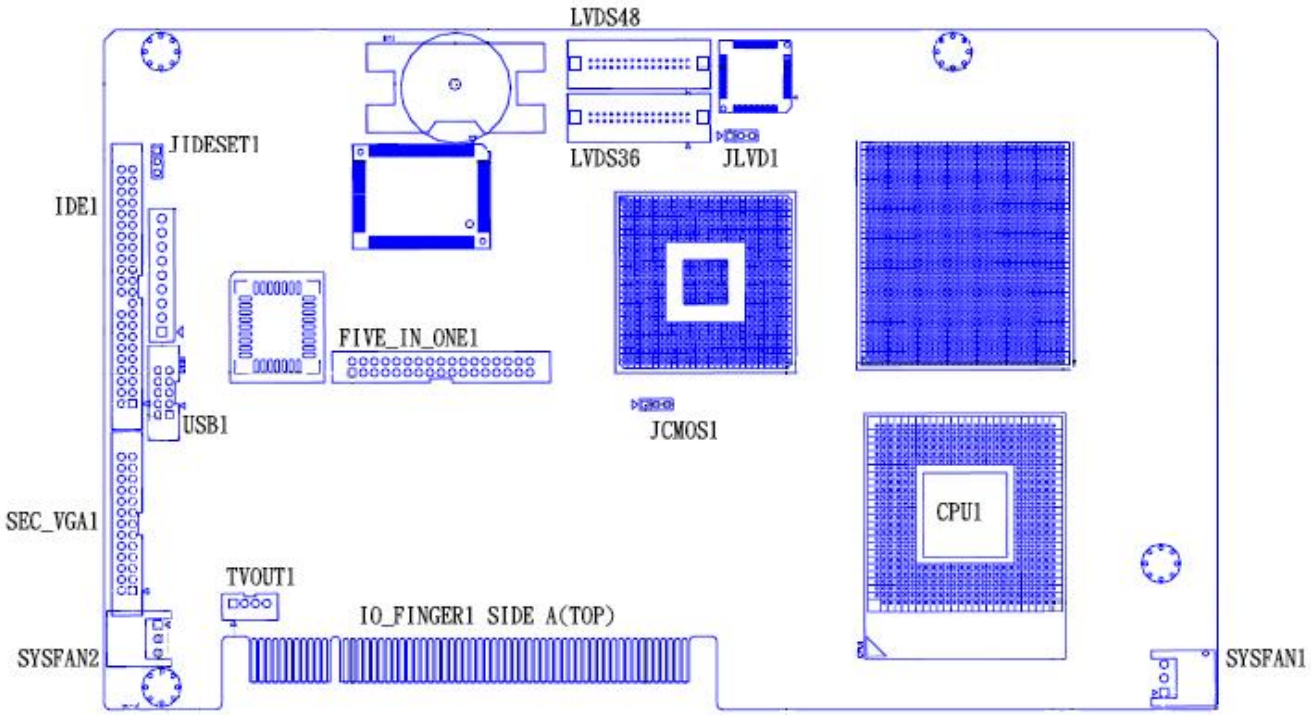
Specifications

RichPOS-3600 Specifications

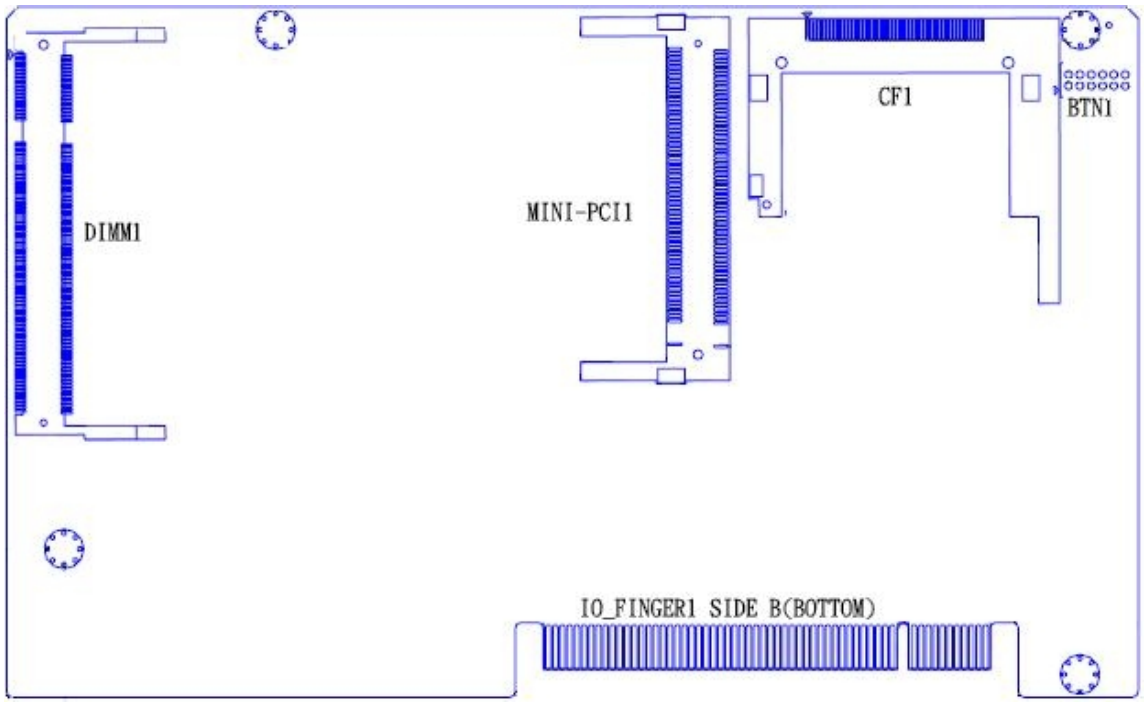
System Configuration	
CPU (PGA 478)	INTEL® Celeron M 1.5GHz or Pentium M 2.13GHz
Chipset	i82915GM MCH + i82801FBM ICH6-M
South Bridge	INTEL 82801FBM (ICH6-M)
Memory	Support one 200-pin SODIMM, DDRII 400/533MHz up to 1GB
VGA controller	Integrated in 915GM (Graphics Media Accelerator 900). 128MB frame buffer using system memory
Primary LCD Panel	12” /15” /17” TFT LCD Panel (800X600/1024x768).
Primary Touch Panel	12” with ELO 4-wire or 15”/17” with ELO 5-wire resistive touch panel.
Storage	Internal 2.5” Serial ATA 40GB hard disk drive (support up to 2 x 2.5” SATA HDD) Supports type II Compact Flash™ Disk. IDE interface
Power	150 watt external power adapter.
I/O Port	
Serial Port	4 User available COM ports (COM1, COM2, COM5 & COM6). 2 System assigned COM ports (COM3 & COM4). ➢ COM3 for primary touch screen. ➢ COM4 for secondary touch screen or customer character display.
Enhanced Parallel Port	supports EPP/SPP/ECP
USB port	4 USB 2.0 ports (2*Internal, 2*External)

Cash drawer port	RJ11 Cash drawer port,12V actuation. Controlled through 2Eh (index port) and 2Fh (data port)
Keyboard Port	One PS/2 keyboard port.
LAN Port	10/100/1000Base-T Ethernet Controller, Realtek RTL8111B
2nd Display Connection	Specially designed connection port for FEC VFD or 2nd LCD display (not standard D-SUB VGA port) 
Audio Port	Integrated Sound Blaster compatible, AC97 Audio Codec. (Realtek ALC655)
Expansion	One mini-PCI socket available
Optional Features	
Customer display	Integrated VFD/LCD customer display.
MSR	External Magnetic Stripe Card Reader track 1/2/3
Identification Device	External Finger Print Receiver and RFID receiver(USB)
Wireless	Internal Wireless Module(USB)
Power Consumption	
Power consumption	80W Idle (Standard system with secondary LCD panel while accessing HDD).
Operating temperature	
Operating temperature	0 ℃ ~ 40 ℃

Motherboard Configuration



Mother Board Top



Mother Board Bottom

This chapter describes how to connect peripherals, switches and indicators to the **AIMB-553** mother board.

Label	Function
JCMOS1	CMOS clear
JLVD1	Set Panel Voltage to 3.3V or 5.0V
JIDESET1	Set Compact Flash Master / Slave
IDE1	44pin 2.0mm Connector, support 2.5” IDE HDD
USB1	USB 2.0 port 4 and port 5
TVOUT1	TV output function
SEC_VGA1	VGA & COM4
FIVE_IN_ONE1	COM3, USB 2.0 port6, port7, inverter, K/B pass, speaker out
LVDS36	Integrated Flat Panel interface, 18bits / 36bits Dual Channel
LVDS48	Flat Panel interface by SDVO_B, 24bits / 48bits Dual Channel
SYSFAN1	FAN connector
SYSFAN2	FAN connector
BTN1	Power Button, Power LED, Reset Button, KB Lock, PS-on

JCMOS1 ***Clear CMOS Setup***

PIN	Description
Short 1-2*	Keep CMOS Setup (Default)
Short 2-3	Clear CMOS Setup

JLVD1 ***TFT LCD Voltage (5V / 3V) Setting***

PIN	Description
Short 1–2	3.3V TFT LCD
Short 2–3	5V TFT LCD

JIDESET1 ***Compact Flash (Master / Slave) Setting***

PIN	Description
Short 1–2	CF Master
Short 2–3	CF Slave

IDE1 ***IDE Pin Definition***

PIN	Description	PIN	Description
1	RESET#	2	GROUND
3	DATA 7	4	DATA 8
5	DATA 6	6	DATA 9
7	DATA 5	8	DATA 10
9	DATA 4	10	DATA 11
11	DATA 3	12	DATA 12
13	DATA 2	14	DATA 13
15	DATA 1	16	DATA 14
17	DATA 0	18	DATA 15
19	GROUND	20	N/C
21	DRQ	22	GROUND
23	IOW#	24	GROUND
25	IOR#	26	GROUND
27	CHRDY	28	REV. PULL LOW
29	DACK	30	GROUND
31	INTERRUPT	32	N/C
33	SA1	34	PD66 SELECT
35	SA0	36	SA2
37	HDC CS0#	38	HDC CS1#
39	HDD ACTIVE#	40	GROUND
41	+5V	42	+5V
43	GND	44	N/C

USB1 ***2 Ports USB Definition (USB 2.0)***

PIN	Description	PIN	Description
1	USBV3	2	USBV3
3	USBD4-	4	USBD5-
5	USBD4+	6	USBD5+
7	GROUND	8	GROUND
9	GROUND	10	GROUND

TVOUT1 ***TV Output Pin Definition***

PIN	Description	PIN	Description
1	TVDAC_A	2	TVDAC_B
3	TVDAC_C	4	GROUND

SEC_VGA1 ***VGA & COM4 Pin Definition***

PIN	Description	PIN	Description
1	VCC12-IO(12V)	2	VCC12-IO(5V)
3	RID#4	4	DSRD#4
5	DTRD#4	6	SIND
7	SOUTD	8	DCDD#4
9	RTSD#4	10	CTSD#4
11	GROUND	12	GROUND
13	VCC12-IO(12V)	14	VCC12-IO(12V)
15	VCC12-IO(12V)	16	VGA_SMDAT
17	VGA_RED	18	VGA_SMCLK
19	VGA_GREEN	20	GROUND
21	VGA_BLUE	22	GROUND
23	VGA_Hsync	24	GROUND
25	VGA_Vsync	26	GROUND

FIVE_IN_ONE1 ***34Pin Box Header Pin Definition***

PIN	Description	PIN	Description
1	DCDC#3	2	DSRC#3
3	SINC	4	RTSC#3
5	SOUTC	6	CTSC#3
7	DTRC#3	8	RIC#3
9	GROUND	10	VCC_COM3 (5V)
11	USBV4	12	USB6-
13	USB6+	14	GROUND
15	USBV4	16	USB7-
17	USB7+	18	GROUND
19	VCC12_INV1 (12V)	20	VCC12_INV1 (12V)
21	GROUND	22	GROUND
23	BKLT_EN	24	VCC_KB (5V)
25	SIO_KBDAT	26	KB_DAT
27	SIO_KBCLK	28	KB_CLK
29	AUD_GND	30	SPKOUT-R
31	AUD_GND	32	SPKOUT-L
33	GROUND	34	GROUND

LVDS36 ***LVDS Pin Definition***

PIN No.	Description	PIN No.	Description
1	GROUND	2	GROUND
3	LVDS_A_D0P	4	LVDS_A_D0P
5	LVDS_A_D1P	6	LVDS_A_D1P
7	LVDS_A_D2P	8	LVDS_A_D2P
9	LVDS_A_CLKP	10	LVDS_A_CLKP
11	NC	12	NC
13	GROUND	14	GROUND
15	LVDS_B_D0P	16	LVDS_B_D0P
17	LVDS_B_D1P	18	LVDS_B_D1P
19	LVDS_B_D2P	20	LVDS_B_D2P
21	LVDS_B_CLKP	22	LVDS_B_CLKP
23	NC	24	NC
25	GROUND	26	GROUND
27	VDD_LCD	28	VDD_LCD
29	VDD_LCD	30	VDD_LCD

LVDS48 ***LVDS Pin Definition***

PIN No.	Description	PIN No.	Description
1	GROUND	2	GROUND
3	LVDS2_A0P	4	LVDS2_A0P
5	LVDS2_A1P	6	LVDS2_A1P
7	LVDS2_A2P	8	LVDS2_A2P
9	LVDS2_CLK1P	10	LVDS2_CLK1N
11	LVDS2_A3P	12	LVDS2_A3N
13	GROUND	14	GROUND
15	LVDS2_A4P	16	LVDS2_A4N
17	LVDS2_A5P	18	LVDS2_A5N
19	LVDS2_A6P	20	LVDS2_A6N
21	LVDS2_CLK2P	22	LVDS2_CLK2N
23	LVDS2_A7P	24	LVDS2_A7N
25	GROUND	26	GROUND
27	VDD_LCD	28	VDD_LCD
29	VDD_LCD	30	VDD_LCD

SYSFAN1 & 2 ***Fan Connectors Definition***

PIN	Description	PIN	Description
1	GROUND	2	12V(or Pulse)
3	SPEED		

BTN1 ***Power Switch & LED Function Setting***

PIN	Description	PIN	Description
Short 1–2	ATX Soft power switch	Short 7-8	HDD LED
Short 3–4	Power LED	Short 9-10	Keyboard Lock
Short 5-6	CPU Reset Bottom or switch	Short 11-12	PS-ON

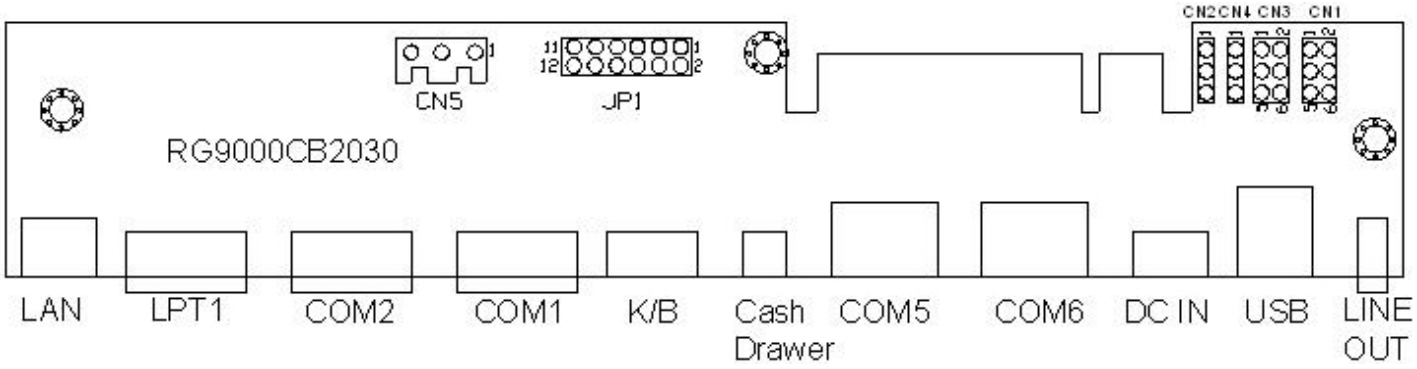
COM & PARALLEL ***COM Ports & Parallel Port Definition***

COM Port	Location	Address	IRQ
COM1	IO_FINGER1	3F8	4
COM2	IO_FINGER1	2F8	3
COM3	FIVE_IN_ONE1	4E0	10
COM4	SEC_VGA1	4E8	11
COM5	IO_FINGER1	4F0	5
COM6	IO_FINGER1	4F8	11
Parallel Port	IO_FINGER1	378	7

I/O board Configuration

The 9000CB2030 board carries the following signals to the main board: LAN, LPT, COM (1/2/5/6), keyboard, cash drawer, audio in and two USB ports.

9000CB2030 I/O Board Pin Definition



JP1 ***COM1 Voltage Selection***

JP1	Description
Short 1-2	+12V
Short 3-4*	RI (Default)
Short 5-6	+5V

JP1 ***COM2 Voltage Selection***

JP1	Description
Short 7-8	+12V
Short 9-10*	RI (Default)
Short 11-12	+5V

CN2 ***COM5 Voltage Selection***

CN2	Description
Short 1-2	+12V
Short 2-3	+5V

CN1 ***COM5 Mode Selection***

CN1	Description
Short 1-3	RS-232 (Default)
Short 2-4	
Short 1-2	VFD
Short 3-5	
Short 4-6	

CN4 ***COM6 Voltage Selection***

CN4	Description
Short 1-2	+12V
Short 2-3	+5V

CN3 ***COM6 Mode Selection***

CN3	Description
Short 1-3	RS-232 (Default)
Short 2-4	
Short 1-2	VFD
Short 3-5	
Short 4-6	

CN5 ***Cash Drawer Voltage Selection***

CN5	Description
Short 1-2	+5V
Short 2-3*	+12V (Default)

Mother Board BIOS Setup (AWARD)

Introduction

Award's BIOS ROM has a built-in setup program that allows users to modify the basic system configuration. This type of information is stored in battery backed-up memory (CMOS RAM) so that it retains the setup information when the power is turned off.

CMOS RAM Auto-backup and Restore

The CMOS RAM is powered by an onboard button cell battery. When you finish BIOS setup, the data in CMOS RAM will be automatically backed up to Flash ROM. If operation in harsh industrial environments causes a soft error, BIOS will recheck the data in CMOS RAM and automatically restore the original data in Flash ROM to CMOS RAM for booting.

Note: *If you intend to change the CMOS setting without restoring the previous backup, you have to click on "DEL" within two seconds of the "CMOS checksum error..." display screen message appearing. Then enter the "Setup" screen to modify the data. If the "CMOS checksum error..."message appears again and again, please check to see if you need to replace the battery in your system.*

Entering Setup

Turn on the computer and press **<Del>** to allow you to enter the BIOS CMOS setup utility.

Figure 1: Award BIOS initial setup screen

Standard CMOS Setup

Choose the **"Standard CMOS Features"** option from the **"initial setup screen"** menu, and the screen below will be displayed. This menu allows users to configure system components such as date, time, hard disk drive, floppy drive, display, and memory. Use the arrow keys to highlight the item and then use the **<PgUp>** or **<PgDn>** keys to select the value you want for each item.

IDE Channel 0 Master/Slave & IDE Channel 1 Master/Slave: If you select **IDE HDD Auto-Detection**, BIOS will show the detail specifications of your drive automatically. If your hard disk drive type is not matched or listed, you can use Manual to define your own drive type manually. Enter the information directly from the keyboard. This information should be provided in the documentation from your hard disk vendor or the system manufacturer.

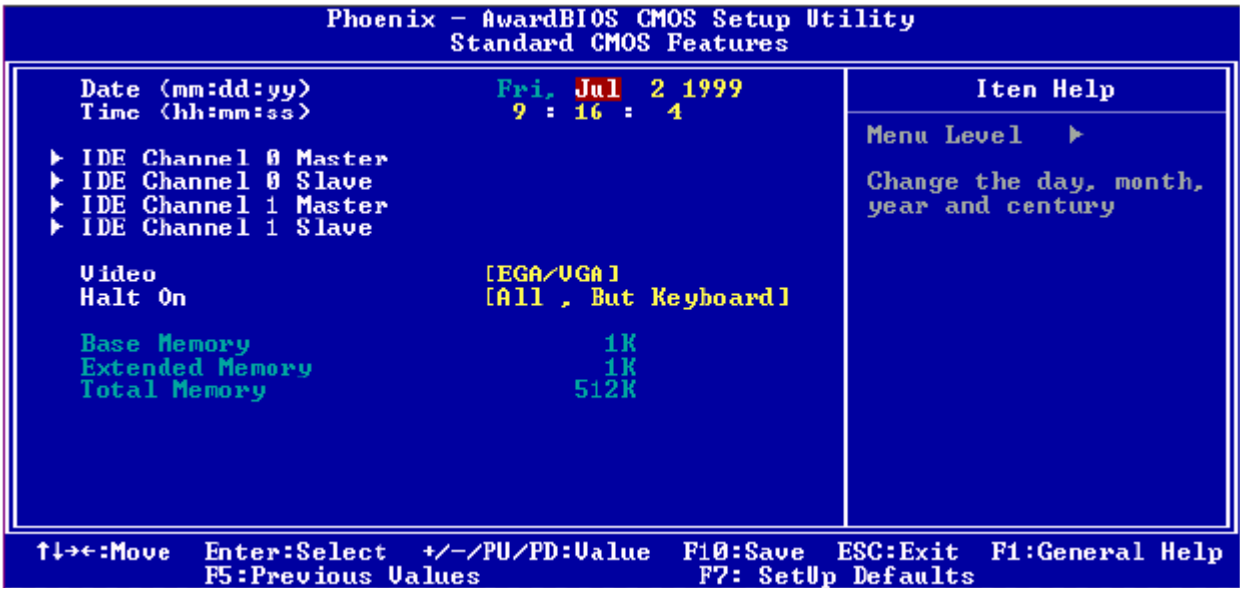


Figure 2: Standard CMOS Features Screen

Advanced BIOS Features

The "Advanced BIOS Features" screen appears when choosing the "Advanced BIOS Features" item from the "Initial Setup Screen" menu. It allows the user to configure the M/B (AIMB-553) according to his particular requirements. Below are some major items that are provided in the Advanced BIOS Features screen. A quick booting function is provided for your convenience. Simply enable the Quick Booting item to save yourself valuable time.

CPU Features

Delay Prior to Thermal: 4Min, 8Min, 16Min or 32Min
Execute Disable Bit: Enabled or Disabled

Hard Disk Boot Priority

If you prefer to enter into **HDD First Boot Device setting** directly as Figure 2, you could press **<F11>** instead of <Del> when you power on system. Pop-up menu will show you a

devices list as options for first boot device selection.

Virus Protection, Boot Sequence and others

Virus Warning, CPU L1 & L2 Cache, boot sequence, APIC Mode, and other features could be configured according to your particular requirements.

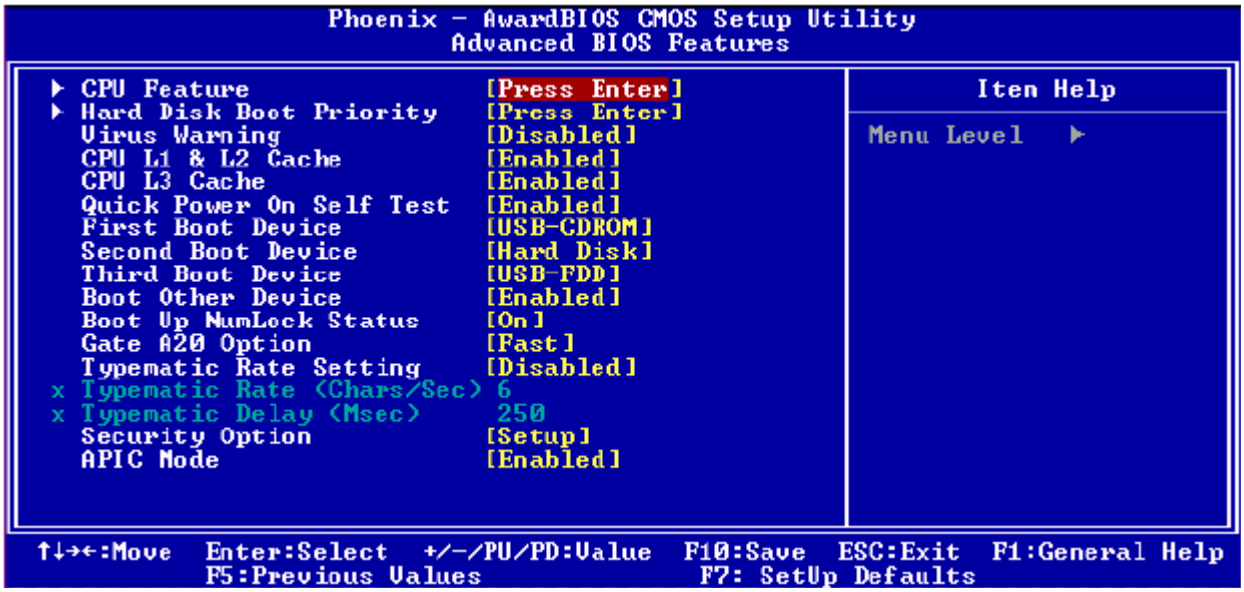


Figure 3: Advanced BIOS Features Screen

Advanced Chipset Features

DRAM Timing Selectable: Manual or By SPD
System / Video BIOS Cacheable: Disabled or Enabled
On-Chip Frame Buffer Size: 1MB or 8MB
DVMT Mode: Fixed, DVMT or BOTH
DVMT/FIXED Memory Size: 64MB or 128MB
Panel Type: There are following different type for options

Table: Panel Type for Options			
640x480 LVDS	800x600 LVDS	1024x768 LVDS	1280x1024 LVDS
1400x1050 RB LVDS	1400x1050 Non-RB	1600x1200 LVDS	

Boot Display: Auto, CRT or LFP

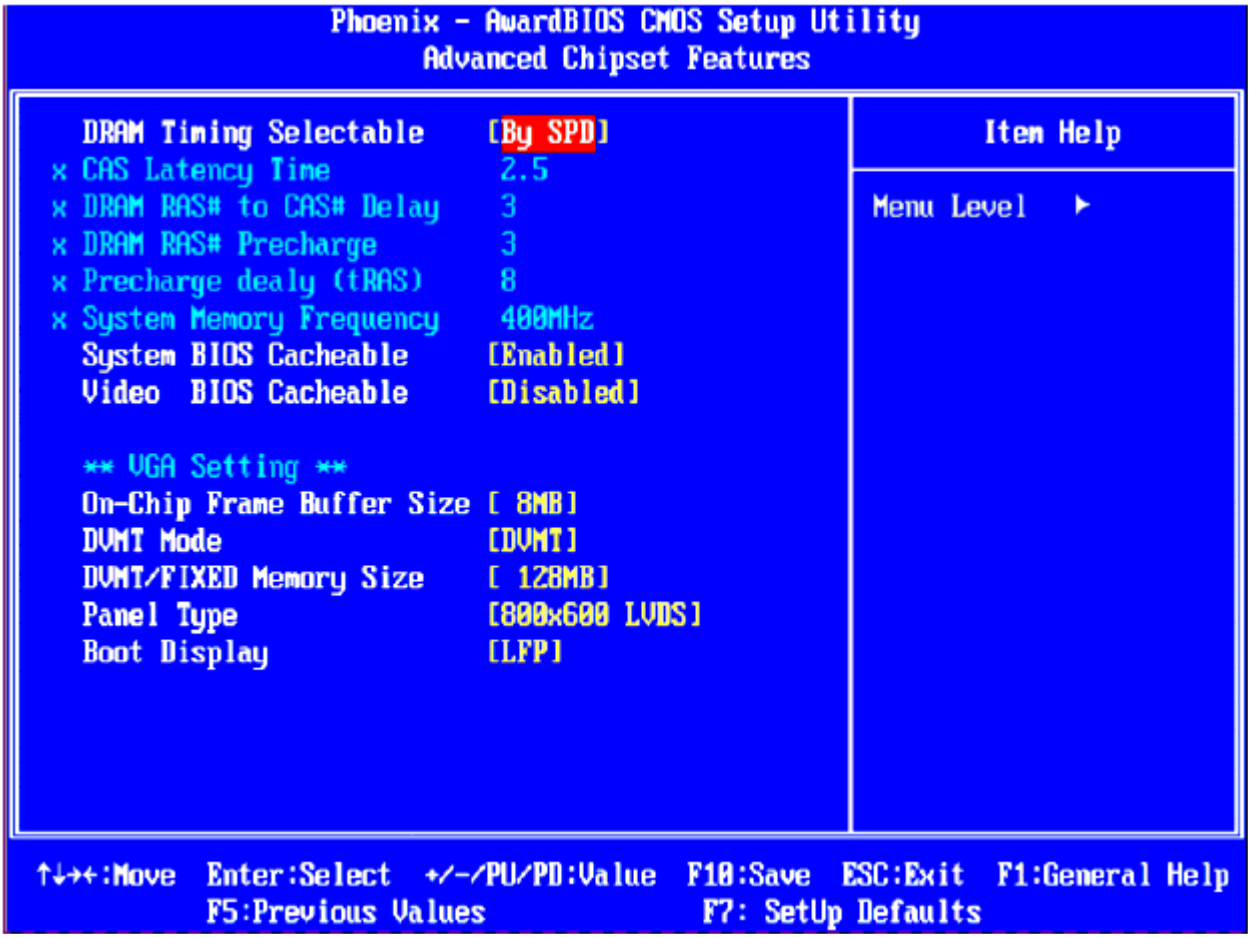


Figure 4: Advanced Chipset Features Screen

Integrated Peripherals

OnChip IDE Device

Recommend to **"Enabled"** all IDE functions and PIO/UDMA by **"Auto"**
On-Chip Serial ATA: Disabled, Auto, Combined Mode, Enhanced Mode & SATA Only

Onboard Device

Setting "Enabled" or "Disabled" for USB / USB 2.0 Controller and USB Keyboard Support
Setting "Auto" or "Disabled" for AC97 Audio

SuperIO Device

Refer to **page 44** for the "Serial Port 1 ~ 6" , parallel port address and IRQ information
Parallel Port Mode: SPP, EPP, ECP, ECP+EPP or Normal
ECP Mode Select: EPP1.9 or EPP1.7
ECP Mode Use DMA: 1 or 3

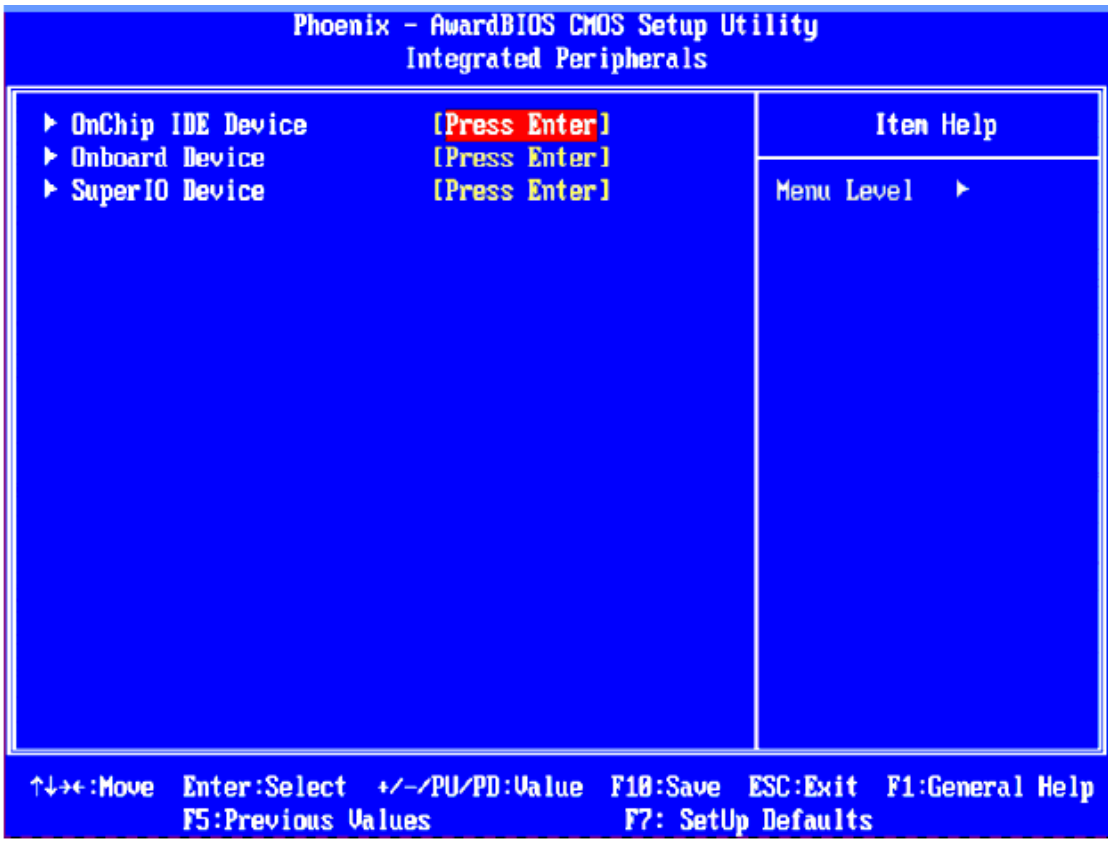


Figure 5: Integrated Peripherals Screen

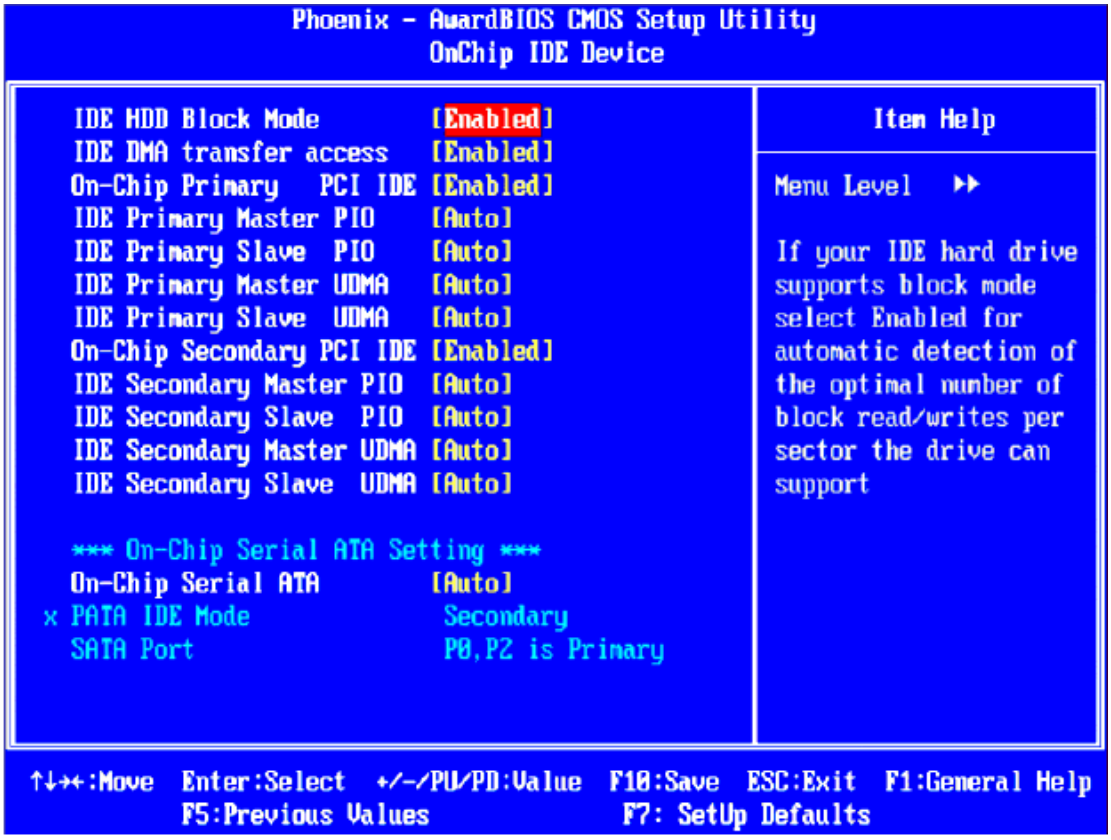


Figure 6: OnChip IDE Device Screen

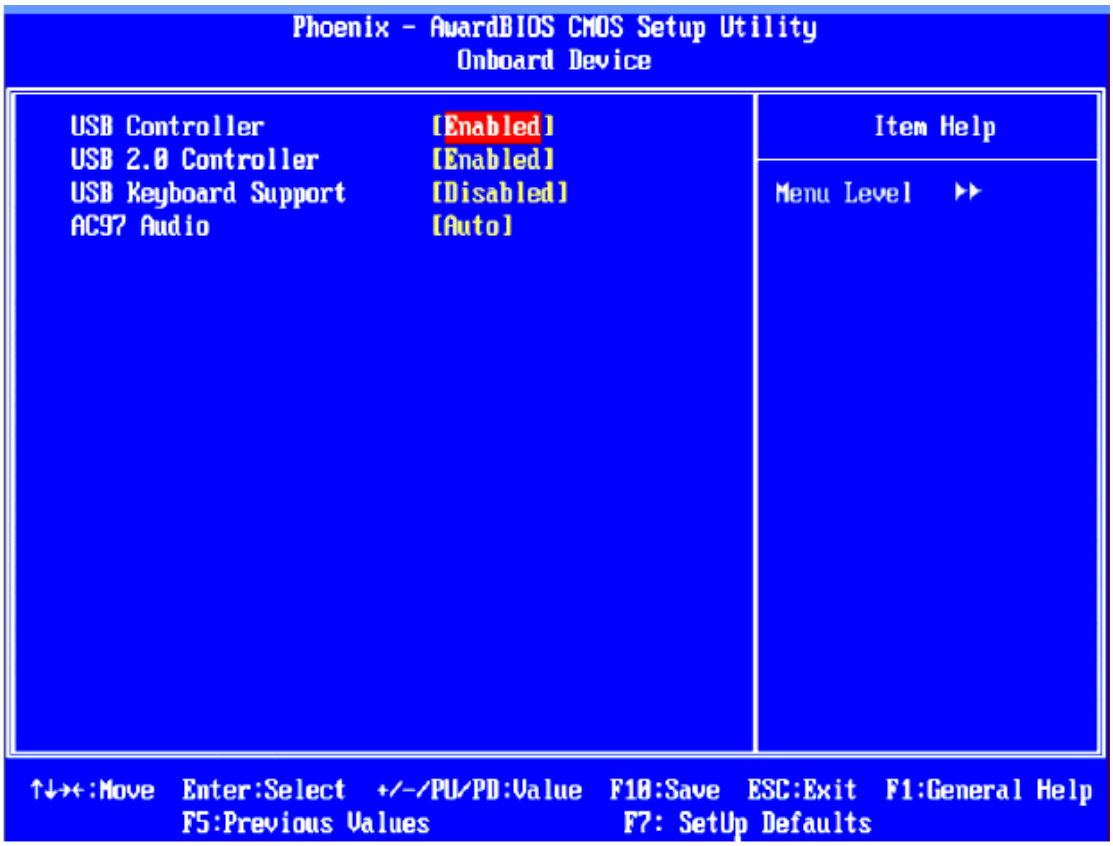


Figure 7: Onboard Device Screen

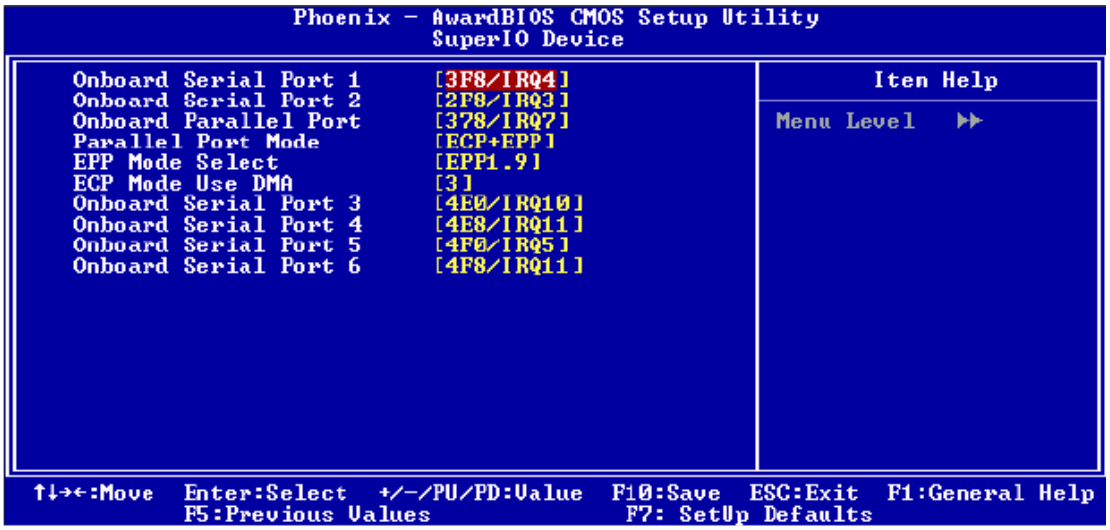


Figure 8: SuperIO Device Screen

Power Management Setup

PCI Express PM Function

PCI Express PM Function: Disabled or Enabled
ACPI Function: Disabled or Enabled
ACPI Suspend Type: S1 (POS)

Power Management: User Define, Min Saving or Max Saving
Video Off Method: Blank Screen, V/H SYNC + Blank or DPMS
Video Off In Suspend: No or Yes
Suspend Type: Stop or PwrOn Suspend
MODEM Use IRQ: NA, 3, 4, 5, 7, 9, 10 or 11
Suspend Mode: There are different mode as following for options

Table: Different Suspend Mode for options			
Disabled	1 ~ 2 Min	2 ~ 3 Min	4 ~ 6 Min
8 ~ 10 Min	12 ~ 14 Min	20 ~ 22 Min	30 ~ 33 Min

HDD Power Down: There are Disabled or 1 Min ~ 7 Min different timing for options
Soft-Off by PWR-BTTN: Instant-Off or Delay 4 Sec.
PowerOn by LAN, PowerON by Modem and PowerOn by Alarm: Disabled or Enabled
Primary IDE 0 / 1, Secondary IDE 0 / 1: Disabled or Enabled
FDD, COM, LPT Port, PCI PIRQ[A-D]#: Disabled or Enabled
PWRON After PWR-Fail: Off, On or Former-Sts

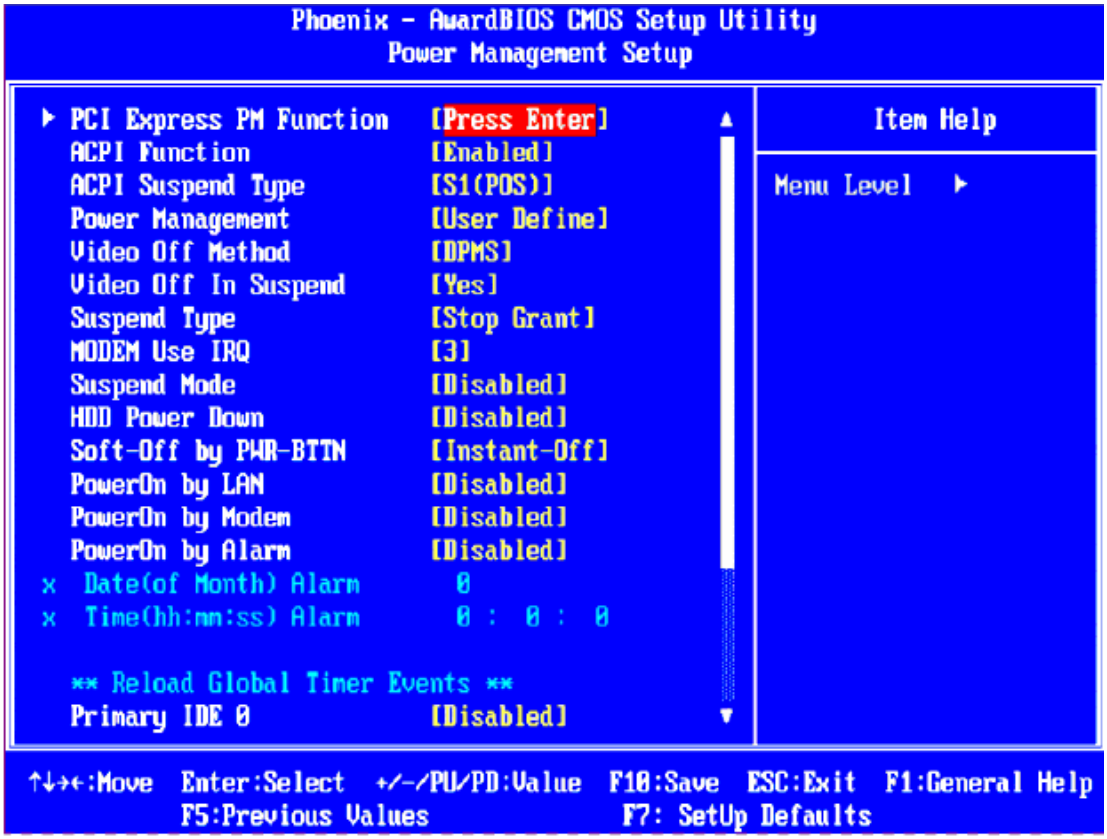


Figure 9-1: Power Management Setup Screen

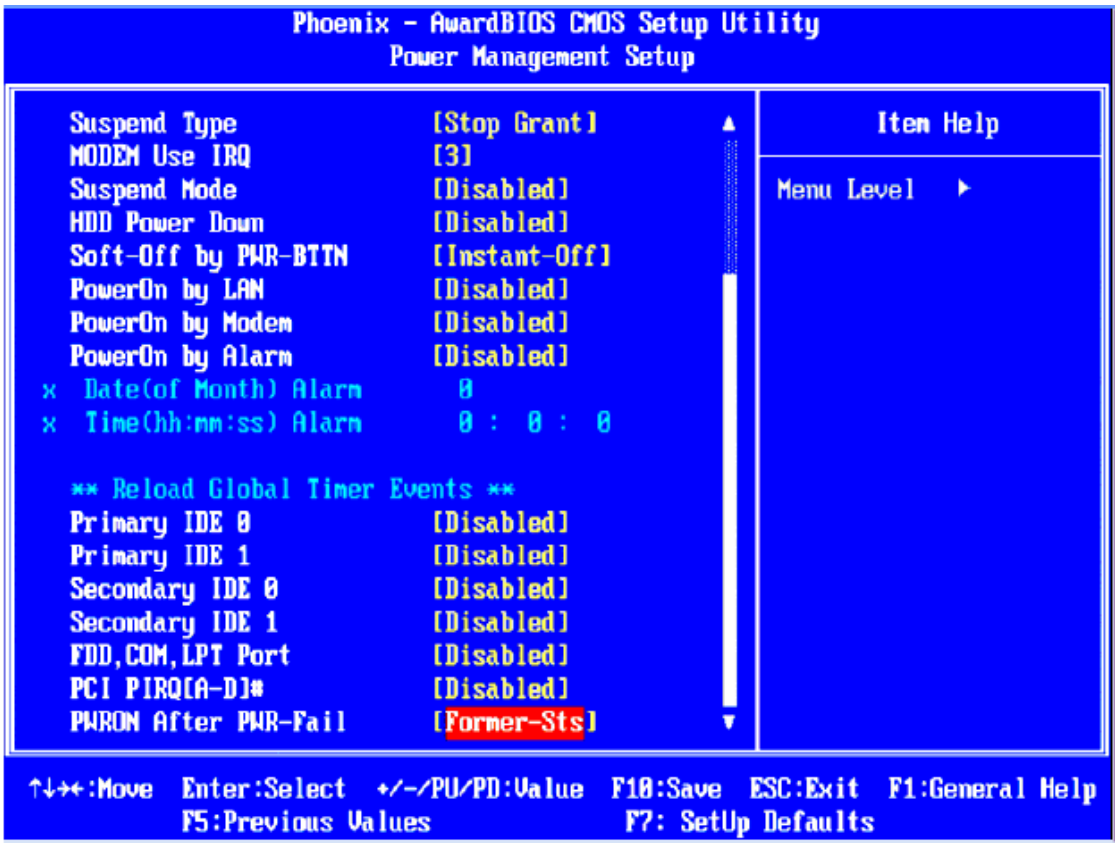


Figure 9-2: Power Management Setup Screen

PnP/PCI Configurations

Reset Configuration Data: Disabled or Enabled
Resources Controlled By: Auto(ESCD) or Manual

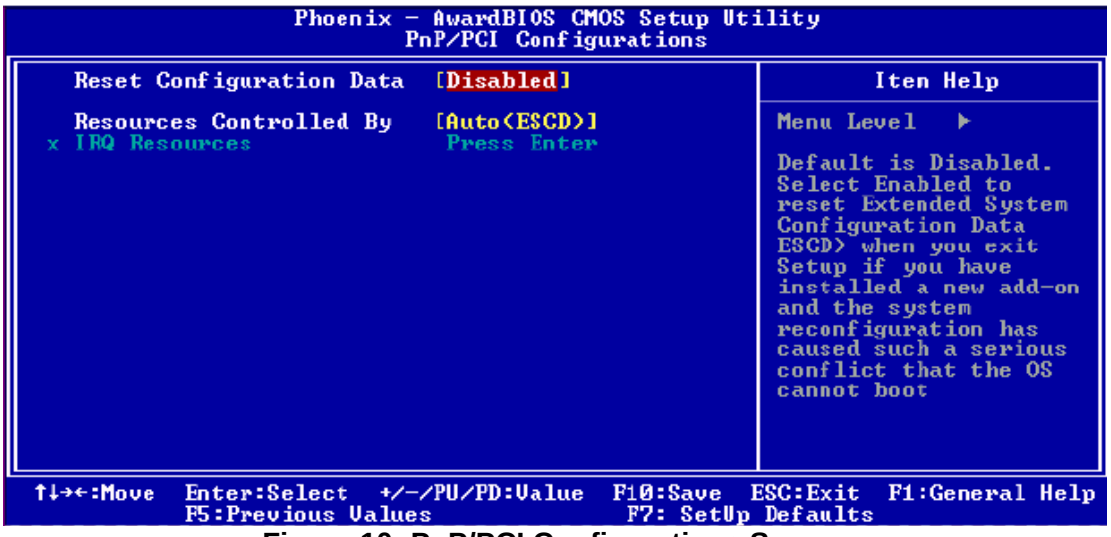


Figure 10: PnP/PCI Configurations Screen

PC Health Status

CPU Warning Temperature

Table: Different CPU Warning Temperature for options			
Disabled	50℃/122℉	53℃/127℉	56℃/133℉
60℃/140℉	63℃/145℉	66℃/151℉	70℃/158℉

Shutdown Temperature

Table: Different Shutdown Temperature for options			
Disabled	60℃/140℉	65℃/149℉	70℃/158℉
75℃/167℉	80℃/176℉	85℃/185℉	90℃/194℉

FAN Duty Control

There are four options as Full, 100%, 50% and 25%

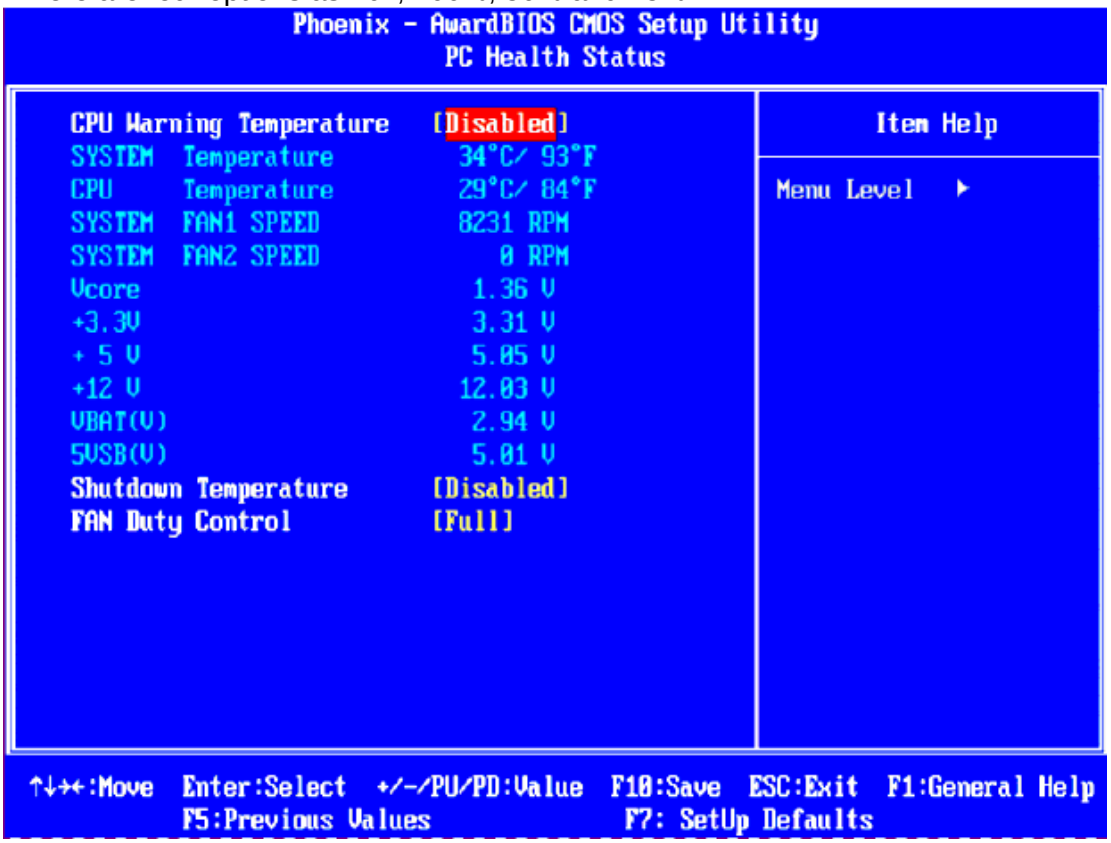


Figure 11: PC Health Status Screen

Load SetUp Defaults

Press **"Y"** if you want to load BIOS default setting
Press **"N"** if you don't want to load BIOS default setting and continue the BIOS setting

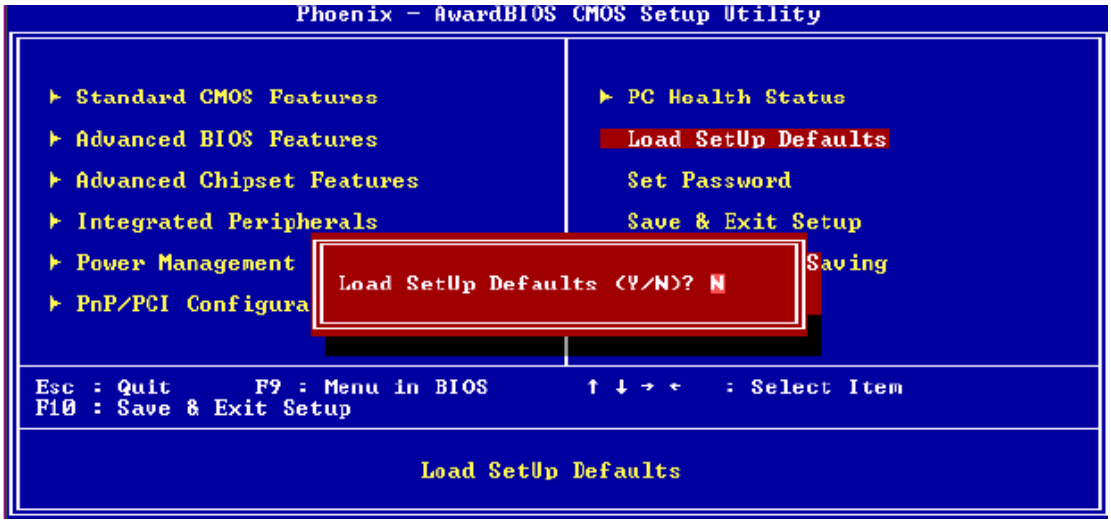


Figure 12: Load SetUp Defaults Screen

Set Password

Enter your password after “Enter Password:” as screen showing
Press **“Enter”** key if you don’t want to set password, “PASSWORD DISABLED!!!” will be showed on screen.

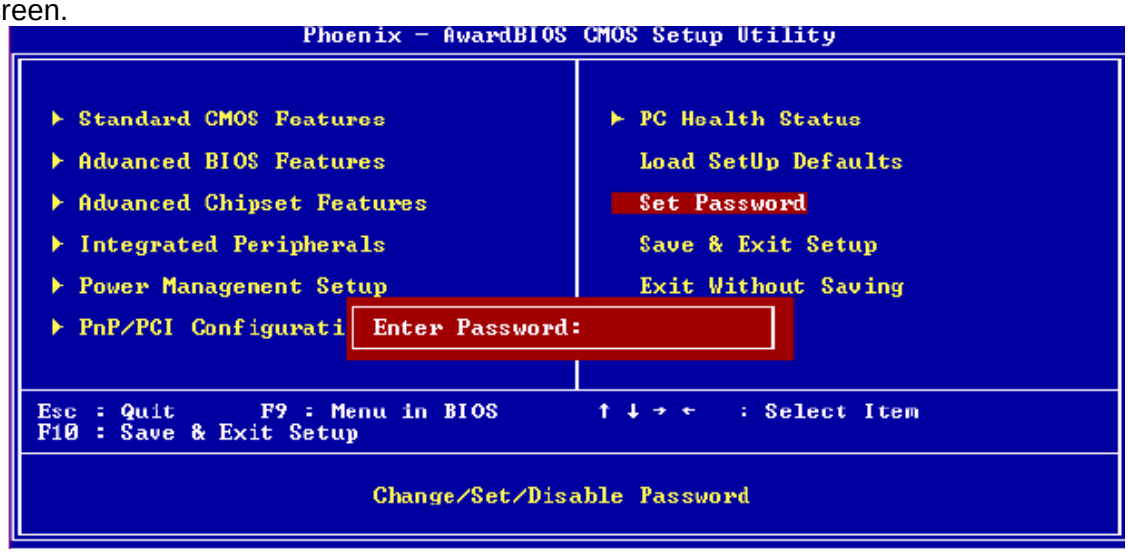


Figure 13: Set Password Screen

Save & Exit Setup

Press **“Y”** if you want to SAVE your changed to CMOS and quit BIOS function.
Press **“N”** if you want to continue the BIOS setting.

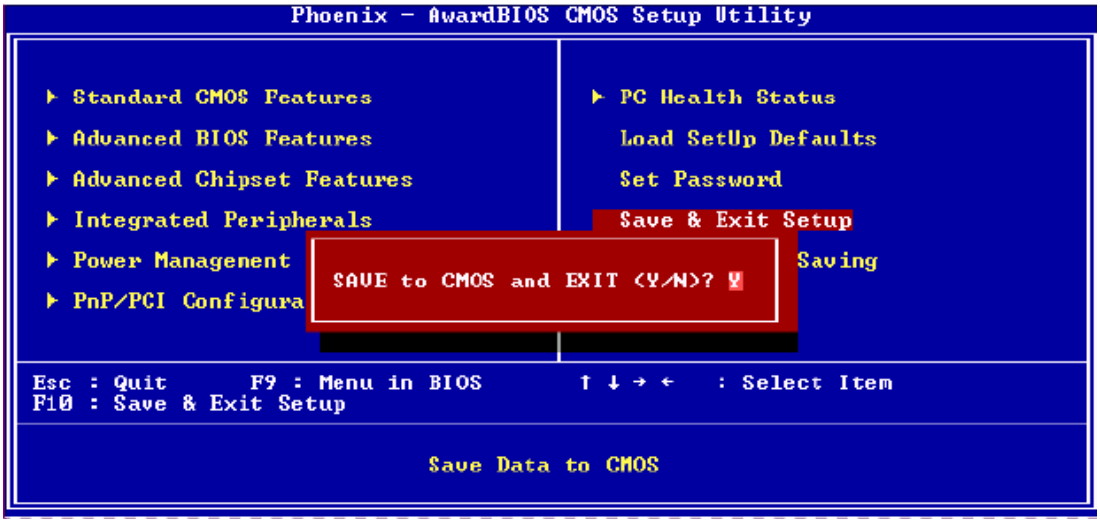


Figure 14: Save to CMOS and EXIT Screen

Exit Without Saving

Press **"Y"** if you want to quit BIOS function without saving any changes which you did.
Press **"N"** if you want to continue the BIOS setting.

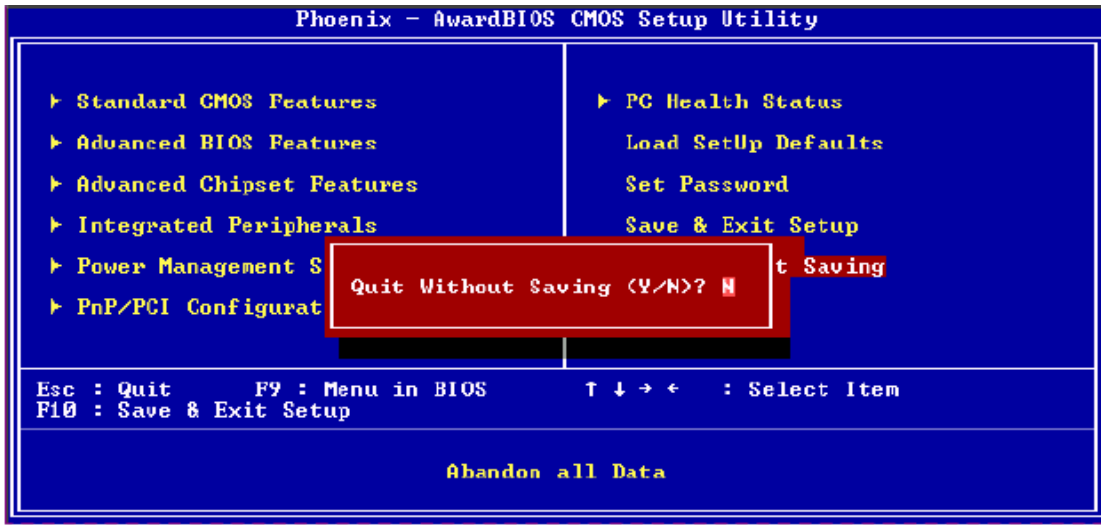


Figure 15: Quit Without Saving Screen

Chapter 5

Troubleshooting

Please note that the following troubleshooting guide is designed for people with strong computer hardware knowledge such as System Administrators and Engineers.

Touch Panel Does not Work

A) Check CMOS settings, COM3 needs to be “Enabled”. The correct settings are “4E0” and “IRQ10”.

B) Check if there are no conflicts between COM3 IRQ10 and any other devices.

C) Check if the ELO driver or the TouchKit driver has been properly installed. Or try to re-install again (Please refer to the ELO driver installation or the TouchKit driver).

D) Check if the ELO controller or the TouchKit driver on COM3 has been detected during the ELO driver or the TouchKit driver installation. If yes, then check if the flat cable from the ELO touch screen or the TOUCHKIT touch screen has been properly connected to the ELO controller or the TouchKit controller (**Attention:** Pin1 mark should be on the same side as the ELO controller).

E) Check if the ELO controller Green LED is blinking?

If no, there is no DC+5V support for the ELO controller from the motherboard.

F) Touch screen controller could be defective or the touch panel could be defective.

ELO Touch Panel Cannot Calibrate Correctly

A) Please replace the ELO controller, and re-calibrate. If this works, change back to the original ELO controller, and re-calibrate.

B) If the ELO touch panel still cannot calibrate correctly after changing to a new ELO controller, the touch panel may be not installed properly or it could be defective.

LAN is not functioning properly

A) Check if the LAN driver is installed properly. (Please refer to the LAN driver installation)

B) Check if there are any IRQ conflicts.

C) Check if the RJ45 cable is properly connected.

D) The on board LAN chip could be defective.

COM1, COM2, COM5, COM6 are not functioning properly

A) Check if the I/O ports are enabled in the CMOS setup.

B) Check if there are any IRQ conflicts.

C) The motherboard could be defective.

Cash Drawer Port is not functioning properly

A) Make sure the pin assignment matches between the cash drawer and the RJ11 cash drawer port.

B) Verify the digit I/O port address and bit are 2Eh (index port) and 2Fh (data port) respectively.

C) The motherboard could be defective.

USB device is not functioning properly

A) Ensure that the USB controller is “enabled” in the CMOS setup.

B) Ensure that the USB Legacy is “enabled” in the CMOS setup. (Windows 2000、Window XP Professional)

C) Ensure that the USB Legacy is “Disabled” in the CMOS setup. (Embedded OS: Windows XP Embedded、Window CE. NET、Linux RedHat 9)