

Chapter 2
Software Specification

1. System Controls

1.1 Hot Keys

Fn+F1	Enters S3 sleep state
Fn+F2	Wireless Enable/Disable
Fn+F3	LCD/CRT/LCD+CRT Switch
Fn+F4	Brightness down
Fn+F5	Brightness up
Fn+F6	Mute
Fn+F7	Volume Down
Fn+F8	Volume Up
Fn+F9	Media Play/Pause
Fn+F10	Media Stop
Fn+F11	Media Play Backward
Fn+F12	Media Play Forward

- After rebooting, pad lock is set to off and Num lock is also too. In this state, the embedded cursor/number pad is not enabled on the notebook keyboard.
- When the embedded keypad is on, holding down Fn will turn the embedded keypad off.

Note: Hot keys for brightness/Volume up /down adjustment are in repeat mode, others will only be updated once for each key depression.

Note2: Hot keys not support display switch in DOS mode

1.2 Buttons

1.2.1 Power Button

The activity of the power button is as follows:

- If system is Off/Hibernate: System will be turned on while Power switch is depressed by more than 100 ms
- If system is in Standby state: System will resume while Power switch is depressed by more than 100 ms.
- If system on with legacy mode: depress this button will turn off power.

If system is running in ACPI OS, the power button acts as the sleep button, and let OS controls the policy of power button which is defined in Power Option under the OS.

1.2.2 Power Button Over-ride

- Holding down the Power Button for 4 seconds will cause an unconditional transfer to the off state without notifying the operating system.

1.2.3 Lid switch

If the system is running under legacy mode:

- Closing the lid will turn off LCD backlight.

If the system is running under ACPI mode:

- The operating system will determine what action to take when the lid is opened and closed.

The function of lid switch will follow the OS setting in power management (Nothing, Standby or Hibernate). If nothing, the backlight must turn off when the lid is closed.

1.3 System status indicators

Please refer to Keyboard BIOS specification.

2. Core BIOS Features

2.1 Enhanced IDE Disk Drive Support (EDD)

In addition to AT standard disk drive support, the Phoenix TrustedCore(tm) also supports:

- Auto-detection and sizing of all IDE drives.
- Logical Block Addressing
- Fast DMA support
- Ultra DMA-33/66/100 support
- SATA with AHCI and non-AHCI mode support.

The CHS translation mode will be used.

2.2 Multi Boot

The notebook can support Multi-Boot for selecting the boot sequence of Hard Drive, Removable Devices, CD-ROM/DVD Drive and Network in Setup.

2.3 Quiet Boot

Quiet Boot replaces the customary technical messages during POST with a more visually pleasing and comfortable display (OEM screen). During POST, right after the initialization of VGA, The notebook displays an illustration called the OEM screen during system boot instead of the traditional POST screen that displays the normal diagnostic messages.

The OEM screen stays up until just before the operating system loads unless:

- Pressing <Esc> to switch to the POST screen and the boot process will continue until the end of POST.
- Pressing <F2> to enter Setup.
- Whenever POST detects a non-terminal error, it switches to the POST screen near the end of POST, just prior to prompting for a password.
- If the BIOS or an option ROM request keyboard input, the system switches over to the POST screen with prompts for entering the information. POST continues from there with the regular POST screen.

2.4 Boot Block

The Flash ROM used in many systems today offer the customer the advantage of electronically reprogramming the BIOS without physically replacing the BIOS ROM. This advantage, however, does create a possible hazard: power failures or fluctuations that occur during updating the Flash ROM can damage the BIOS code, making the system unbootable. To prevent this possible hazard, many Flash ROM include a special non-volatile region that can never be erased. This region, called the boot block, contains a fail-safe recovery routine. If the boot block finds corrupted BIOS, it prompts the end user to insert a diskette, from which it loads several files that replace the corrupted BIOS on the Flash ROM with an uncorrupted one.

2.5 New Interrupt 15h extensions

The BIOS must support the recently defined standard INT 15 extensions:

2.5.1 Big Memory

Big memory support can report greater than 64 megabytes of RAM. The notebook supports the INT 15h big-memory reporting functions of E801h, E881h, and E820h. This feature reports all available extended memory (both below and

above the 64MB limit) using both a real mode (E801h) and a 32-bit protected mode (E881h) interface. Operating systems can access the real-mode interface through the standard INT 15h call. They can access the protected-mode interface through a 32-bit interrupt call, much like the EISA protected-mode interface. The Microsoft-defined E820h function returns a complete memory map through a series of repeated calls.

2.6 Plug-n-Play (PnP) Support

To achieve the goal of PnP, a POST conflict detection and resolution (CDR) module, and a run-time services module will be integrated into the system BIOS.

The PnP runtime service module includes multiple interfaces so that the system can support the current DOS, as well as Win98 operating system that include specific support for the PnP BIOS specification.

3. Security Features

The security feature to be supported is password.

3.1 2 Level Passwords

The notebook supports two levels password protection. The password support consists of a User Password and an Supervisor Password. They each contain up to eight characters, and are stored in CMOS.

When the password is enabled, the notebook may display a suitable password prompt on the main display in the following situations:

- Turning on from the Off State.
- Turning on from Hibernation.
- Entering to Setup.

The User will attempt to enter a password, then press ENTER. If the User fails to enter the password in three tries the system will return to the state it was turned on from (off, Hibernation).

All user data on screen must not be visible before entering the correct password.

3.1.1 User Password

The user can choose to enable or disable:

- Password required on boot

The user may also require entry of the user password before entering setup menu.

While setting new password, three failures to enter the old password will result in the system halt.

3.1.2 Supervisor Password

There are three primary uses for the Supervisor Password:

- To protect the contents of the PC Identification strings from changes by the user.
- Protect users from changing system configuration that could cause the notebook to malfunction.
- As the user password if only a single password is desired.

3.1.3 Valid Password Characters

Valid Password Characters

- The numbers 0 to 9.
- The letters A to Z (not case sensitive).
- The special symbols - (dash), =, [,], ;, \, ' , , (comma), ., /, and (space)

The password is stored as scan codes.

Both passwords will be encrypted before being stored in CMOS RAM using the standard Phoenix password encryption technique.

3.2 Hard disk password

The hard disk password used is a function of the hard drive serial number. It will follow the drive, if it is removed from one unit and put into another system.

3.3 Power on password

The user can choose to enable or disable:

- Password required on boot

The user may also require entry of the power on password before boot to DOS.

While setting new password, three failures to enter the old password will result in the system halt.

4. Thermal management

Please refer to Keyboard BIOS specification.

5. Power Management for ACPI mode

5.1 Introduction

The notebook supports ACPI. The system will dynamically switch to ACPI mode for configuration and power management when an ACPI OS is loaded.

When ACPI is not loaded and enabled, the power management function will be disabled.

5.2 System Time-outs

If the system is running in ACPI mode, system Time-outs is handled by the operating system. BIOS time-outs are disabled. System time-outs are set using the control panel power applet.

5.3 System Power Management

The overall system can be in one of the system power states as described below:

ACPI mode	Power Management
Mech. Off (G3)	All devices in the system are turned off completely.
Soft Off (G2/S5)	OS initiated shutdown. All devices in the system are turned off completely.
Working (G0/S0)	Individual devices such as the CPU and hard disk may be power managed in this state.
S3 Sleeping State	CPU set power down VGA Suspend PCMCIA Suspend Audio Suspend Hard Disk Power Down ODD Power Down Super I/O Power Down
S4 Sleeping State	System Saves all system states and data onto disk prior to power off the whole system.

5.4 Device Power Management

Under ACPI mode, the device specific power management supported by this notebook includes the CPU throttling, monitor power management and the hard disk.

5.4.1 CPU power management

- ACPI mode

The operating system detects when the system is idle and places the CPU in one of the 3 CPU low power states (C1, C2 or C3) depending on how much latency it believes the system can afford.

The C1 state is simply the CPU halt instruction. The C2 state is the CPU stop grant state. The C3 state is the CPU stops clock state. The CPU stays in this state until an interrupt occurs.

5.4.2 Hard Disk

The operating system uses the spin down timer of the hard drive to set time-outs. The BIOS time-out of the hard disk must be disabled in ACPI mode. The user can set the hard disk spin down time-out in the control panel power applet.

5.4.3 Display Device

The monitor can be turned off after a period of no activity based on the settings of the OS.

5.4.4 System Wake Up Sources

The table below lists the wake up events for all low power states:

Events	S3	S4	S5	Process required
Any key	O	X	X	X
Power button	O	O	O	X
Lid open	O	O*4	X	X
Modem Ring (PCI-E Modem)	X	X	X	X
Modem Ring (USB Modem)	X	X	X	X
Modem Ring (on board)	O	O	O	X
LAN (PCI-E)	X	X	X	X
LAN (MiniPCI)	X	X	X	X
LAN (USB)	X	X	X	X
LAN (On board) *3	O	O	X	O
AC/Battery	X	X	X	O
Thermal	X	X	X	O
RTC*3	O	O	X	X

LPT/KB/Mouse/FDD/HDD	X	X	X	X
Audio/Video activity	X	X	X	X
PCI-E SLOT	X	X	X	X
USB	X	X	X	X
CRT (no event) plug/unplug	X	X	X	O
Power Kill (no event)	X	X	X	KB only
Critical low battery	O	X	X	X

Field 'Process Required' identifies that further process for the occurred events must be processed during wake up or resume procedure.

Notes:

- 1: Any keys are not wake up source of suspend to RAM and Hibernate states.
- 2: Activity of the USB device is dependent on the driver support.
- 3:Lan(On board) and RTC can wake up source of Standby and Hibernate states with AC mode.
- 4:Lid switch can wake up system from Standby states with AC/DC mode

5.4.4.1. Modem Ring

- PCI-E Modem

The function of waking up the system from S1/S3 (standby) is not supported.

- USB Modem

The function of waking up the system from S1/S3 (standby) is not supported.

5.4.4.2. LAN

- PCI-E LAN

The function of waking up the system from S1/S3 (standby) is not supported.

- USB LAN

The function of waking up the system from S1/S3 (standby) is not supported.

- LAN (On board)

The function of waking up the system from S3/S4 (standby/hibernation) is supported.

5.4.4.3. Real Time Clock Alarm

The Real Time Clock alarm interrupt will wake the system from Standby (DC/AC) / Hibernation (AC mode)

5.4.4.4. PC-Card Wake Up

PC-Cards can't wake the system up from Standby.

5.4.4.5. USB Device

The usb device can't wake the system from Standby.

5.4.4.6. Critical Low Battery

Critical low battery event can't wake the system from Standby in ACPI mode

5.5 Hibernation

To support the hibernate state, the save to disk partition or file will be created by the operating system if the user select to enable the hibernation.

It is the responsibility of the operating system to save the system state to a disk file and restore the system state when it is turned back on.

6. ACPI (Advanced Configuration and Power Interface)

6.1 Introduction

The Advanced Configuration and Power Interface (ACPI) is a well-specified power management and configuration mechanism. It evolves the existing collection of power management codes, APM, PnP BIOS, and Etc.

6.2 ACPI Sleep Status

BIOS must support the following sleep states – S3, S4 and S5.

6.3 Fast Boot and Fast Resume

BIOS must hands off the control to the operating system within the following time limits:

	Required
S5->S0	10sec
S4->S0	10sec
S3->S0	250msec

*Measured using the Microsoft BootVis tool.

In addition, total resume time from S3 must be completed within 5 seconds.

6.4 Power State Transition Diagram

The state transition diagram in ACPI mode is as follows:

From (State)	Leave By Condition	Enter (State)
S3	Power Button	S0
	Lid switch	
	On board LAN	
	Alarm	
	Critical low battery(Only in DC mode)	
S4	Power Button	S0
	Lid switch	
	On board LAN	
	RTC	
S5	Power Button	S0
	On board Lan	
S0	Press Lid switch (depends on ACPI OS setting)	S3
	Standby icon in shutdown menu in Windows.	
	ACPI OS timer expired	
	Critical low battery (depends on ACPI OS setting)	
	Critical low battery (depends on ACPI OS setting)	
S0	Press Lid switch (depends on ACPI OS setting)	S4
	Press Power Button (depends on ACPI OS setting)	
S0	Press Lid switch (depends on ACPI OS setting)	S5
	Press Power Button (depends on ACPI OS setting)	

6.5 Storage Devices and Batteries

Possible storage devices are FDD, HDD, CD-ROM and DVD-ROM

- Floppy Disk and Hard Disk, CD-ROM and DVD-ROM

The BIOS must report the correct types of these devices if the drive is installed in the system during POST. Two devices, which belong to the same category, are not supported in this notebook.

- Batteries

The BIOS must follow ACPI specification and report the correct number of the installed battery and status.

6.6 Bootable Device

The system is capable of booting from onboard HDD, CD ROM, DVD-ROM, external USB Floppy and USB ATA Flash device.

6.7 Embedded controller

The keyboard controller will act as the ACPI embedded controller and support the ACPI EC protocol and interface.

7. PC2001

The notebook must meet Microsoft Logo requirements in accordance with the PC2001 Guide and the Microsoft Logo test programs.

8. Miscellaneous Features

8.1 Single BIOS ROM

The system BIOS and Keyboard BIOS share one single flash ROM. The size of the flash ROM is 1MB.

8.2 USB Support

This feature allows the use of a USB keyboard to access BIOS Setup and to be used in DOS without additional drivers. USB floppy boot and Crisis Recovery

from USB floppy is also supported. The driver provides other USB devices support after loading the operating system.

8.3 Flash utility – one BIOS ROM only

The flash utility can be used to program both system and keyboard BIOS at the same time.

8.4 Crisis Recovery

This feature provides an opportunity for system that cannot boot up. With a crisis floppy diskette, the system can perform crisis recovery by using internal PS2 keyboard.

To perform crisis recovery using keyboard, do the following:

Power off the system.

Plug-in the USB floppy drive with crisis floppy diskette inserted.

Hold down Fn + B keys.

Plug-in AC adapter and make sure it is powered.

Power on the system from off state (i.e. cold boot) while holding down <Fn+B> key.

After POST, release <Fn+B> key. The system should boot from floppy and perform crisis recovery action.

8.5 VGA Support

This section describes the expected behavior when a video monitor is connected to the VGA port on the notebook .The feature needs VGA driver support

The BIOS will use both the RGB and pin 11 methods to determine the presence of an external VGA monitor.

Video modes supported on the secondary display path (need VGA driver support)

Supported video modes and timings please refer to the technical reference of VGA vendor. In particular, text mode and standard VGA modes are not supported.

9. Customer Specific Features

9.1 *Display of System Type and BIOS Version Number on Boot*

BIOS Version V1.00*

Note: * The numbers of BIOS version will be changed.

9.2 *CMOS RAM management*

The BIOS will automatically update certain information in CMOS on each boot. This information includes:

- DRAM size and configuration
- Hard disk configuration
- Always report the existence of one FDD.

If the CMOS RAM fails checksum or a power lost on CMOS battery is detected during boot, an appropriate error message will be displayed:

Establishing default CMOS configuration

Run SETUP to change configuration

The system BIOS must automatically load default values defined in the setup menu during POST when encounter these problems. The user must not be required to take any action to continue the rest of POST (or entering SETUP).

9.3 *System Management BIOS(SM BIOS) version 2.4 (DMI 2.0)*

Limited DMI 2.0 BIOS information are provided:

BIOS version number is type 0 data item.

Type 1:

- System serial number – 64 alphanumeric characters with 12-character bundle number
- System manufacturer name – ‘COMPAL’
- System product name – 32 alphanumeric characters
- System version – 32 alphanumeric characters

Type 2:

- Motherboard Product name – ‘IFL90 or IFL91’

Type 3:

- Asset tag number –64 alphanumeric characters

9.4 EEPROM

There is one EEPROM that is used to store many important system and user data in the notebook (some data are reserved for future to use)). The size of the EEPROM is 2K bytes.

The EEPROM map is listing as below:

Name	Offset	Comments
System Serial Number	00h-3Fh	64 bytes of Serial number.
Manufacturer name	40h – 4Fh	16 bytes fir DMI type 1
System version	50h – 6Fh	32 bytes of System version.
UUID	70h – 7Fh	16 bytes for UUID.
System product name	80h – 9Fh	32 bytes of System product name.
DMI type 11	A0h – DDh	62 bytes for DMI type 11
Unused	DEh – DFh	Unused
GUID	E0h – E7h	8 bytes for GUID
Reserved	EBh - EFh	Reserved
Keyboard type	F0h	Define for US/UK/JP keyboard
Keyboard BIOS used	F1h	1 byte for Keyboard BIOS used
Process ID for factory	F3h – F4h	Identification ID for test process control
Reserved for keyboard	F5h – F6h	Reserved 2 bytes for keyboard used
Unused	F7h – FDh	Unused
EEPROM initialized flag	FEh	Set to AAh when the EEPROM get initialized.
Assettag number	200h – 23Fh	64 bytes for DMI Type 3
Reserved	240h - 7FFh	Reserved

10. System Setup

10.1 Invoking setup

The setup function can only be invoked by pressing F2 when “Press <F2> to enter Setup” message is prompted on the bottom of screen during POST.

The setup uses a menu driven interface to allow the user to configure their system. The features are divided into 5 parts as follows:

Main Allows the user to specify standard IBM PC AT system parameters.

Advanced Provides advanced settings of the system.

Security Provides security settings of the system.

TPM State Allows the user to configure TPM settings.

Boot Allows the user to specify the boot options.

Exit Allows the user to save CMOS setting and exit Setup.

During setup, all Fn function keys and power saving functions are disabled.

10.2 Setup screens

10.2.1 Main Menu

Phoenix TrustedCore(tm) Setup Utility					
Main	Advanced	Security	TPM State(*)	Boot	Exit
				Item Specific Help	
System Time:		[19:34:35]		<Tab>, <Shift-Tab>, or <Enter> Selects field.	
System Date:		[01/01/2006]			
Hard Disk:		Hark Disk Model name			
Quiet Boot:		[Enabled]			
System Memory:		640 KB			
Extended Memory:		502 MB			
BIOS Ver.		X.XX			
Language		[English (US)]			
F1 Help	↑ ↓ Select Item	F5/F6 Change Values		F9 Setup Defaults	
Esc Exit	← → Select Menu	Enter Select ▶ Sub-Menu		F10 Save and Exit	

- System Time and System Date

The hour is displayed with 24-hour format. The values set in these two fields take effect immediately.

- Hard Disk

The Hard Disk information is displayed with the manufacturer and model name.

- Quiet Boot

Enabled: Customer Logo is displayed, and Summary Screen is disabled

Disabled: Customer Logo is not displayed, and Summary Screen is enabled.

- System Memory

This field reports the memory size of system base memory. The size is fixed to 640KB.

- Extended Memory

This field reports the memory size of the extended memory with an integer in the system, but 32Bit SMI will occupy 1 MB and UMA frame buffer (Integrated VGA uses only).

Extended Memory size = Total memory size – 1 MB – 1 MB – UMA frame buffer

- BIOS Version

This field displays current version of the BIOS.

- Language

Currently only English is supported.

10.2.2 Advanced menu

Phoenix TrustedCore(tm) Setup Utility			
Main	Advanced	Security	TPM State(*)
AHCI Configuration Total Graphics Memory: Legacy USB Support:		[Enabled] 512MB [Enabled]	Item Specific Help Enhanced AHCI: WinXP-SP1+IAA driver supports AHCI mode.
F1 Help	↑ ↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	← → Select Menu	Enter Select Sub-Menu	F10 Save and Exit

- AHCI (Advanced Host Configuration Interface) Configuration

Disabled: Disables the AHCI mode.

Enabled: Enables the AHCI mode.

- Total Graphics Memory

This field displays the total onboard graphics memory

- Legacy USB Support

Disabled: Disables the legacy USB support.

Enabled: Enables the legacy USB support

10.2.3 The Security Menu

The notebook's advanced security system allows you to set a password to prevent unauthorized access to system resources, data, and the BIOS Setup program. This section covers each Security parameter. Selecting Security from the menu bar displays the Security menu.

A Note about Passwords

The BIOS Setup program allows you to specify passwords in the Security menu. The passwords control access to the BIOS and certain Security menu options during system startup.

Passwords are not case sensitive. A password can be entered using either upper or lower case letters; it makes no difference. When you choose your password, it should be composed of alphanumeric characters (a-z, 0-9) and be eight characters in length.

NOTE: The supervisor password must be set before the user password can be set.

Set Supervisor Password... / Set User Password...

Phoenix TrustedCore(tm) Setup Utility					
Main	Advanced	Security	TPM State(*)	Boot	Exit
		Supervisor Password Is:	Clear	Item Specific Help Supervisor password controls access to the setup utility.	
		User Password Is:	Clear		
		Set Supervisor Password:	[Enter]		
		Set User Password:	[Enter]		
		Password on boot:	[Enabled]		
		Built-in HDD1 Status	Clear		
		Built-in HDD1 Password Select	[User Only]		
		Set HDD User Password	[Enter]		
		Trusted Platform Support(*)	[Disabled]		
F1 Help	↑ ↓ Select Item		F5/F6 Change Values	F9 Setup Defaults	
Esc Exit	← → Select Menu		Enter Select ▶ Sub-Menu	F10 Save and Exit	

These fields allow you to set the System Password. The System Password allows full access to the BIOS Setup menus. To set the Supervisor password, highlight this field and press [Enter].

Type the password and press the [Enter] key. You can type up to eight alphanumeric characters. Symbols are ignored.

To confirm the password, type the password again and press the [Enter] key.

- Supervisor Password Is / User Password Is

This field displays if the Supervisor/User Passwords is set.

Set System Password is set.

Clear System Password is not set.

- Set Supervisor Password / Set User Password

Enter this field always shows the message.

While this field is highlighted, press [Enter]. The following message is shown:

Set Supervisor Password	
Enter New Password	[]
Confirm New Password	[]

If there is an existing password then setup will prompt with the following window instead and the current password will be required to be entered at first:

Set Supervisor Password	
Enter current password	[]
Enter New Password	[]
Confirm New Password	[]

User can type password in field of **Enter New Password**, and re-enter password in field of **Confirm New Password** for verification.

If verification OK:

Setup Notice
Changes have been saved.
[Continue]

The supervisor password is saved after pressing [Enter].

If verification fails:

Setup Warning Password do not match Re-enter Password [Continue]

The formats of the password are as follows:

Length: No more than eight characters.

Characters:Alphanumeric keys only. The shift status, Ctrl, Shift, Alt, and capitals, are ignored.

- Password on boot

If password on boot is required, the password must be set otherwise it cannot be enabled. Enable this field to have setup prompt for the password when the computer boots.

- Built-in HDD1 Status

Set HDD Password is set.

Clear HDD Password is not set.

- Built-in HDD1 Password Select

User Only For normal user entering HDD password.

User+Master Master password must be set first before user password can be configured.

- Set HDD User Password / Set HDD Master Password

Enter this field always shows the message.

While this field is highlighted, press [Enter]. The following message is shown:

Set HDD Master Password Enter New Password [] Confirm New Password []
--

If there is an existing password then setup will prompt with the following window instead and the current password will be required to be entered at first:

Set HDD Master Password		
Enter Current Password	[]
Enter New Password	[]
Confirm New Password	[]

User can type password in field of **Enter New Password**, and re-enter password in field of **Confirm New Password** for verification.

If verification OK:

Setup Notice
Changes have been saved.
[Continue]

The HDD password is saved after pressing [Enter].

If verification fails:

Setup Warning
Password do not match
Re-enter Password
[Continue]

If password on boot is required, the password must be set otherwise it cannot be enabled.

The formats of the password are as follows:

Length: No more than 8 characters.

Characters: Alphanumeric keys only. The shift status, Ctrl, Shift, Alt, and Capital, are ignored.

- Trusted Platform Support (*)

This item will show up if Trusted Platform Module (TPM) exists within the system.

Disabled: Disables TPM support.

Enabled: Enables TPM support.

10.2.4 The TPM State Menu

This menu allows the user to understand current TPM state and change the TPM state.

The TPM state menu will show up if TPM exists within the system and Trusted Platform Support item is enabled in “Security Menu”.

Phoenix TrustedCore(tm) Setup Utility			
Main	Advanced	Security	TPM State(*)
Security Chip State:		Enable and Deactivated	
Change TPM State		[No Change]	
		Item Specific Help	
F1 Help	↑ ↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	← → Select Menu	Enter Select ▶ Sub-Menu	F10 Save and Exit

- Security Chip State

This field displays the current TPM state.

- Change TPM State

<u>No Change</u>	Do not change the TPM settings.
Enable & Activate	Enable chip encrypted data and user from taking ownership.
Disable & Deactivate	Disable security chip prevents encrypted data from being used and Deactivated security chip prevents a user from taking ownership.
Clear	Clear Security Chip to default state and release ownership.

10.2.5 The Boot Menu

This menu allows the user to decide the order of boot devices to load the operating system. Bootable devices include the diskette drive in module bay, the onboard hard disk drive and the CD-ROM in module bay.

Phoenix TrustedCore(tm) Setup Utility			
Main	Advanced	Security	TPM State(*)
HDD CD/DVD FDD LAN			Hark Disk Model name CD/DVD Drive Model name
			Item Specific Help Keys used to view or configure devices: Up and Down arrows select a device. <F5> and <F6> moves the device up or down. <Shift + 1> enables or disables a device.
F1 Help	↑ ↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	← → Select Menu	Enter Select ▶ Sub-Menu	F10 Save and Exit

10.2.6 The Exit Menu

Phoenix TrustedCore(tm) Setup Utility					
Main	Advanced	Security	TPM State(*)	Boot	Exit
Exit Saving Changes Exit Discarding Changes Load Setup Defaults				Item Specific Help	
F1 Help	↑ ↓ Select Item	F5/F6 Change Values	F9 Setup Defaults		
Esc Exit	← → Select Menu	Enter Select ▶ Sub-Menu	F10 Save and Exit		

- Exit Saving Changes

Allows the user to save changes to CMOS and reboot system. The following message prompts the user to confirm after pressing [Enter] on the item.

<p>Setup Confirmation</p> <p>Save configuration changes and exit now?</p> <p>[Yes] [No]</p>

Yes: Exit SETUP and reboot

No: Go back to previous screen

- Exit Discarding Changes

Allows the user to exit Setup without saving changes to CMOS. The following message prompts the user to confirm after pressing [Enter] on the item.

<p>Setup Warning</p> <p>Configuration has not been saved!</p> <p>Save before exiting?</p> <p>[Yes] [No]</p>

- Load Setup Defaults

Allows the user loads default values in CMOS Setup. The following message prompts the user to confirm after pressing [Enter] on this item.

Setup Confirmation Load default confirmation now? [Yes] [No]
--

Select **Yes** to confirm or **No** to abort. You will then return to the setup screen.

11. OS Compatibility

Windows XP Home Edition /Professional

Windows Vista 32-bit

Windows Vista 64-bit Premium design ready for Discrete.

Windows Vista 64-bit Basic design ready for UMA