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# **Rugged Notebook**

## **UC-26KS**

Using Your Notebook

CHAPTER

**3**

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## 3. Using Your Notebook

This chapter describes the basics of notebook operation including keyboard use, Hot-key function, basic touchscreen technique, and using the floppy disk and Hard disk drives.

### Keyboard Operations

Your UC-26KS rugged notebook's Windows XP keyboard features an embedded Numeric keypad and a full array of special function keys, as shown in Figure 9.

The Keyboard consists of five main groups of Keys: Navigation and editing keys, various operations keys, alphanumeric keys, and function keys,



<Figure 9 Keyboard Layout>

#### Navigation and Editing Keys

The navigation and editing keys (defined in the Navigate Keys table) allow you to move through and edit text. Some editing keys also have software-specific function.

Navigation Key	Explanation
Ins (insert key) Key	Switches typing mode from insert to overwrite. In the overwrite mode, existing text is deleted as you type over it.
Del (delete) Key	Deletes the character to the right of the Cursor.
Page Keys	<b>PgUp</b> displays the previous page and <b>PgDn</b> displays the next page. The function of the <b>Home</b> and <b>End</b> keys depend on the software you are using.
Arrow Keys	Moves the cursor in the direction of the arrow key pressed.

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## Operations Keys

Most of your notebook's operations keys have software-specific functions defined in the Operations Keys table. For more detailed information on these keys refers to the appropriate documentation for the software you are using.

Operation Key	Explanation
Esc (Escape) Key	Although this key is software specific, it generally Function as an all-purpose about key.
Tab Key	Sets a tab or makes the cursor jump to a preset Tab position.
CapsLock Key	Press this key to type letters in uppercase only. An icon Appears on the LCD status window when this Feature is activated. Number keys and function key are not affected when you activate CapsLock, so you must still press the shift key to generate the symbols and punctuation Marks above the number keys when CapsLock is activated. Press the CapsLock key again to turn off the CapsLock function. Pressing the shift key and a letter key when CapsLock is activated generates a lowercase letter instead of an uppercase letter.
Shift key	Press this key with an alphanumeric key to generate either uppercase letter or the symbols at the top of the key.
Function key	Press this keys to invoke the functions identified in pink on top of certain keys.
Ctrl & Alt keys	These keys are software specific and are usually used in combination with other keys.
Space bar	Press the space bar to enter a blank space.
<b>PrtSc(print screen)/SysRq</b> Ssystem Request) Key	The PrtSc key is software specific. When you press this key from most programs the current screen display is printed. Press Alt+SysRq to access the function of a software application.
NumLk(NumLock) Key	Fn+NumLk activates the embedded numeric keypad. An icon appears on the LCD status window when this feature is activated.
ScrLk(scroll Lock) Key	Press this key to activate up or down directional Scrolling of information. This is a software-specific key. An icon appears on the LCD status window when this feature is activated. Scroll Lock affects cursor movement and text scrolling in some applications.
Pause/Break Key	Press this key to halt and restart scrolling of information being displayed on the screen. Press it again to resume scrolling.
Back Space Key	Press this key to begin a new line. Most software applications use to enter information that
Enter Key	Press this key to begin a new line. Most software applications use enter to enter information that you provided in dialog boxes.

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## Alphanumeric Keys

Your notebook's alphanumeric keys consist of alphabetic keys(A-Z), numeric key(0-9), and keys with printable symbols found on most typewriters.

## Function Keys

The function Keys are located on the top row of the keyboard, labeled F1 through F12. Precise functions vary, depending on the operating system and software you are using.

Refer to software and operating system documentation for precise function key definitions.

## Adjusting the Screen Display

Adjust your LCD screen display with the key defined in the table.

Function keys	Explanation
* (-)	<b>Decreases brightness</b> Decreases the display brightness. This setting Remains in effect until you change it.
* (+)	<b>Increases brightness</b> Increases the display brightness. This setting Remains in effect until you change it.

## Keyboard Controls

You can change many of your notebook's settings by pressing a combination of Keys.

A hot key is a key or key combination you use to activate a command or setting. Some

hot keys implement permanent settings that are retained even when you turn your notebook off.

Other hot keys implement temporary settings. These settings affect only your current notebook session and are retained when you turn your notebook off.

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## Using the Touchscreen

### **Clicking and Double-Clicking**

Clicking once selects or initiates an operation. Double-clicking starts applications or opens documents and folders. Quickly press either once to click or twice to double-click.

You can also use the track pointer to move the cursor to an item on the screen.

### **Tapping and double-Tapping**

You can point click more rapidly by using the touchscreen. To click once, tap gently anywhere on the touchscreen. To double click, tap the touchscreen twice rapidly.

### **Dragging and Dropping**

You can move an item by selecting it and then dragging it to another place in the document. Use the touchpen to move the cursor to the desired item on the screen.

Press and hold down the left button to select the item.

You can then drag the item around the screen by moving of the touchpen around the touchscreen.

### **Tapping and Dropping**

You can drag and drop using the touchpen.

Position the cursor over the item you want drag.

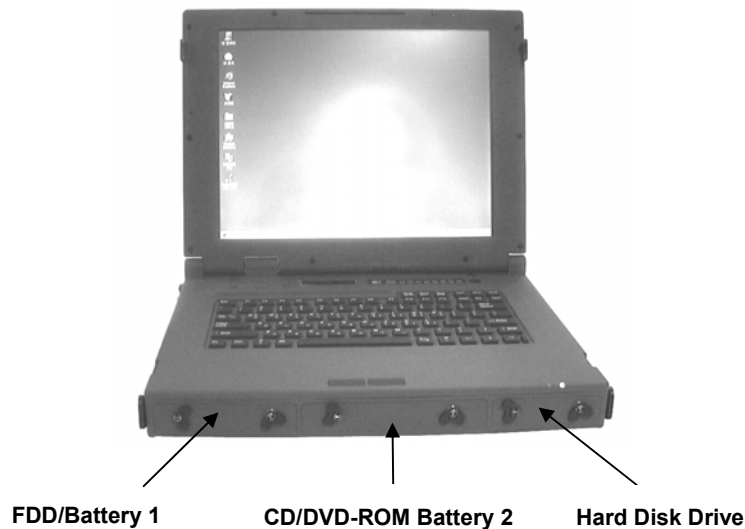
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## Storing and Retrieving Data

Data storage and retrieval are two of the tasks that you will perform most often when working with your notebook. The data storage options include a 3.5-inch floppy disk drive, a hard disk drive, and a CD-ROM drive.

### Using the floppy Disk Drive

A high-density, 3.5-inch, removable floppy disk drive (FDD) is designated drive A: by your notebook's operating system. You can remove your floppy disk drive and replace it with a battery module.



< Figure 10 Location of Notebook Drives >

### Floppy Disk Capacities

The floppy disk drive accepts both 720KB double-density disks and 1.44MB high-density disks. These disks are sometimes labeled by manufacturers as double-density 1.0MB and high-density 2.0MB disks. These labels indicate the unformatted capacities of the disks.

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## Inserting and Removing Floppy Disks

To insert a floppy disk into the floppy disk drive :

1. Hold the disk with the metal drive wheel facing down and the metal end facing toward the drive
2. Insert the disk into the drive slot and gently push it into the drive
3. The disk clicks into place, and the eject button pops out.

The disk is ready to use.

To remove a disk from the floppy disk drive.

1. ensure that the FDD Status indicator icon is not displayed.
  - ☐ Caution You should never remove a disk from the drive while the FDD Status indicator icon is displayed. You may damage both the disk and the drive's read/write head.
2. gently press the disk eject button.

When the disk pops, out remove it from the drive slot and store it in a cool, dry place.



< Figure 11 Removing a Floppy Disk >

## Caring for Disks

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Under normal conditions a disk's rigid plastic case protects it from damage. Data stored on floppy disks, however, is easily corrupted. To preserve the integrity of data stored on floppy disks we recommend following these protective measures :

- Never touch the magnetic surface of the disk
- Don't expose disk to extreme temperatures
- Don't drop disks on the floor
- Keep disks away from magnetic fields generated by power supplies, monitors, and so on
- Don't smoke in the same room where disks are used or stored. Particles from cigarette smoke can scratch the surface of the disk
- Store disks in a dry, dust-free environment.

## **Using the CD-ROM Drive**

Your UC-26KS rugged notebook computer features a multi-speed CD-ROM drive. You can use CD-ROM drive to access CD-ROM programs, to read data stored on CD-ROM disks, video CDs and photo CDs, as



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well as to play audio CDs.

To use the CD-ROM drive, you must install it in CD-ROM drive before you turn your notebook on.

## **Inserting and Removing a CD-ROM Disk**

To insert a CD-ROM disk :

1. With the notebook turned on press the button on the front of the CD-ROM drive
2. Gently pull the tray out to its fullest extension
3. Insert the CD-ROM with the label (printed) side up
4. Gently push the tray in until it clicks in place.

The CD-ROM is ready to play.



**< Figure 12 Inserting a CD-ROM Disk >**

To remove the CD-ROM disk reverse the insertion procedure.

## **Using the Hard Disk Drive**

Your UC-26KS rugged notebook has a removable hard disk drive.

The hard drive uses an ultra DMA(Direct Memory Access) for improved data access time and system

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performance.

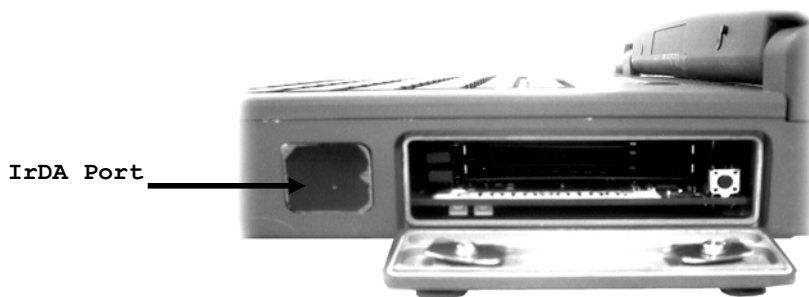
The notebook's modular architecture makes it easy to remove and replace your hard disk drive.

## Using the Serial Infrared Port

Your UC-26KS rugged notebook has an IrDA-compliant serial infrared port located on its left panel.

The IrDA port allows wireless, serial communications between your notebook and other SIR-equipped device such as a printer or another computer. Similar to a television remote control device, the IrDA port transmits and receives data.

Use the Windows XP Terminal utility to transmit or receive data through the UC-26KS rugged notebook's IrDA port. Refer to Windows XP documentation for instruction on using the Terminal utility.



< Figure 13 IrDA Port >

- ❑ **Caution** : You cannot use your modem and IrDA port at the same time. If you use the IrDA port, you cannot use your modem until you disable the IrDA port and re-enable the modem.

## Enabling the IrDA Port for Use

Follow these guidelines to set your notebook's IrDA port to transmit or receive data :

1. Confirm that infrared(IR) is ready to use by going to Control panel ⇒ Infrared ⇒ options. Enable IR communications should be selected.
2. Confirm the IR setting within Options are :
  - Enable infrared communications on COM2
  - Provide application support on COM4 and LPT3( The IR light should appear in the windows tool bar in the lower left-hand corner of your

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screen )

You can now use IR for data communications. Open your IR-capable software application and proceed with data communication.

**NOTE :** Do not use COM1 for IrDA communications.

## **Transmitting and Receiving Data with the IrDA Port**

Follow these guidelines when using your notebook's IrDA port to transmit or receive data :

1. Line up your notebook's IrDA port with the other device's IrDA port.
2. Ensure that the distance between your notebook's IrDA port and the other device's IrDA port is not more than three feet(one meter) and that the angle between the two IrDA ports does not exceed 15 degrees.
3. Clear any obstructions between the two IrDA post to ensure a clear optical signal.
4. Do not move your notebook or the other device during data transmission.  
(Movement distorts the optical and will result in the loss of data)

## **Disabling IR for Modem Use**

To use your modem after using the infrared feature, your must disable IR using the following procedure:

1. Go to control panel ⇒ Infrared ⇒ Options and un-check Enable IR communication.
2. Press OK.
3. The modem is now ready for data / fax communications.

You can confirm that your internal modem is ready through control panel ⇒ Modems ⇒ Diagnostics. Select COM2 and click more information. If the modem is enabled the diagnostics display verifies the connection.

## **Additional Devices**

### **Universal serial Bus**

Your notebook uses Universal Serial Bus(BUS) to connect serial peripheral devices and the take advantage of the Plug and Play feature in Windows XP.

If you are not using a USB peripheral device, you may need to disable this feature.

To disable the USB feature :

1. Click on the Windows XP Start button
2. Select Setting ⇒ Control Panel ⇒ System

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3. Select the Device Manager tab
  4. Scroll Universal Serial Bus controller
  5. Double-click to view the listings for Standard Universal PCI to USB Host Controller and USB Root Hub
  6. Double-click on USB Root Hub to display the menu
  7. Click Disable in the hardware profile
  8. USB is disable

To enable USB, repeat these steps and select Exists in all hardware profiles option.

## **Disabling the CardBus**

CardBus is a protocol that support 32-bit devices used in the PCMCIA slots.

If you choose to disable this protocol :

1. Click on the Windows XP start button
2. Select Setting ⇒ Control Panel ⇒ System
3. Select the Device Manager tab
4. Scroll to PCMCIA socket
5. Double-click to view the listings for CardBus controllers that correspond to CardBus slots 1 and 2
6. Double-click on the desired listings to display their respective menu
7. Check Disable in the hardware profile box

NOTE : Resource limitations in Windows XP prevent you from using two CardBus PCMCIA cards when USB is enabled. To use two CardBus PCMCIA Cards you must first disable USB using the procedures outlined in “Universal Serial Bus”.

## **Internal Local Area Network**

To disable the optional internal LAN card :

1. Click on the Windows XP start button
2. Select Setting ⇒ Control Panel ⇒ System
3. Select the Device Manager tab
4. Scroll to Network adapters
5. Double-click to view the listings
6. Double-click on 80w/100w PCI 10/100 Base Ethernet LAN module to display their respective menus
7. Check Disable in the hardware profile

To enable the Ethernet adapter, repeat these steps, and check Exists in all hardware profiles.

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# **Rugged Notebook UC-26KS**

## **Connecting and Installing Optional Devices**

### **CHAPTER 4**

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#### 4. Connecting and Installing Optional Devices

This chapter provides instructions for connecting and installing both external and internal devices.

## Windows XP Plug and Play Support

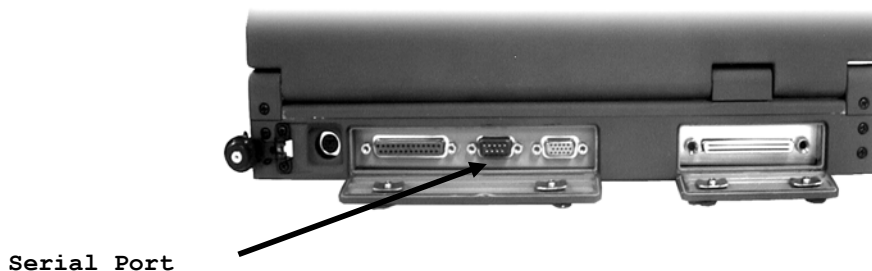
Your notebook's Plug and Play features are supported in Windows XP. Plug and Play means your system can automatically detect and configure devices. You can connect or disconnect Plug and Play devices while your computer is turned on. Peripheral devices must support Plug and Play for the feature to work.

## Connecting Optional Peripheral Devices

Your notebook's serial and parallel ports are designed to accommodate specific peripheral devices. This section describes the specifications of your notebook's serial and parallel ports and how they are used.

### Serial Port

Your notebook has an RS-232 compatible serial port. You can connect serial devices such as a mouse, a serial printer, a plotter, a modem, or a graphics tablet, to the serial port. The serial port is located at the rear of your notebook (see Figure 14). To access this port, open the large panel.



<Figure 14 Serial Port>

The serial port uses a DB-9 type connector. Many serial devices are equipped with a DB-25 type connector. To plug a DB-25 connector into your notebook's DB-9 connector, a serial 25-to-9 adapter is necessary.

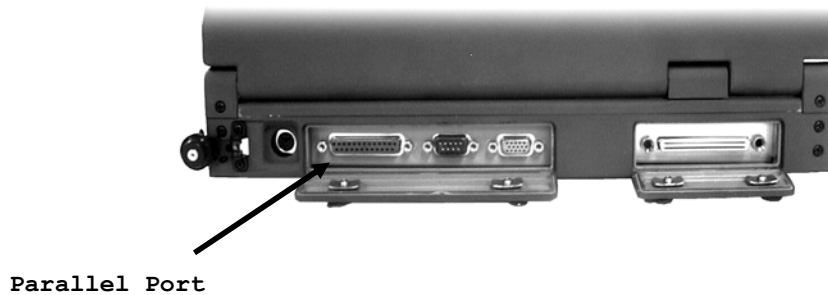
**NOTE :** We recommend that you assign COM1 as the port for any serial device you connect to your notebook.

### Parallel Port

You can connect a parallel output device such as a printer, to the parallel port. The parallel port is located at

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the rear of your notebook (see Figure 15)



<Figure 15 Parallel Port >

The UC-26KS rugged notebook supports three parallel port operation modes :

- Standard
- Bi-directional (default)
- ECP

**In standard** mode the parallel port allows data output only.

**In Bi-directional** mode the parallel port allows both data input and output.

**In ECP** mode, the parallel port operates when you load an Extended Capabilities Port (ECP) device driver. Only ECP-aware peripherals support this mode. If you configure the LPT Mode option field in the BIOS Setup program as ECP, the application you are using must be ECP-aware.



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## Connecting an External Pointing Device

You can attach an external pointing device, such as a mouse or a graphics tablet, to either the PS/2 port or the serial port. Refer to your pointing device's documentation for information on which port to select.

**NOTE :** To use an external keyboard and an external pointing device at the same time, insert a Y connector in the Mini-DIN port located at the rear of the notebook.

Follow these instructions to connect an external pointing device :

1. Determine the type of interface (PS/2 or serial) required by your pointing device (Refer to the device's operating manual for more information.)
2. If the device requires a PS/2 interface, locate the external mouse (Mini-DIN) port at the rear of the notebook.
3. Connect the male connector of your device cable to the female PS/2 port
4. If the device requires a serial interface locate the 9-pin connector at the rear of your notebook by opening the large panel
5. Connect the 9-pin female connector of your device cable to the 9-pin male serial port (see Figure 16)



<Figure 16 Connecting an External Pointing Device >

## Connecting an External Keyboard

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You can connect an external IBM PS/2 or compatible keyboard to your rugged notebook.

**NOTE :** To use an external keyboard and an external pointing device at the same time, insert a Y connector in the Mini-DIN port located at the rear of the notebook.

To connect an external keyboard:

1. Locate the PS/2 Serial (Mini-DIN) port located at the rear of the notebook (see Figure 17)



<Figure 17 Connecting an External Keyboard>

2. Align the pins of the keyboard jack and connect it to the external keyboard port.

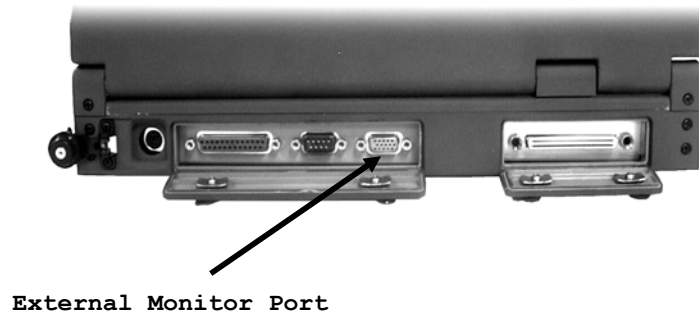
**Note :** If your keyboard has an AT-style keyboard connector, use an AT-to-PS/2 keyboard adapter.

Although both the embedded keyboard and the external keyboard are functioning, do not use them simultaneously.

## Connecting an External Monitor

To connect an external monitor :

- 
1. Locate the external monitor port at the rear of your notebook
  2. Connect the monitor cable to the external monitor port (see Figure 18)



<Figure 18 Connecting an External Monitor>

3. Plug the external monitor cable into a suitable power source and turn the monitor on
4. Press Fn+F7 to change the active display device.

**NOTE :** Fn+F7 toggle between 3 active display setting :

- LCD (your notebook monitor)
- LCD and VRT (external monitor)
- CRT only

## Connecting a Printer

To connect a parallel printer :

1. Located the parallel port at the rear of your notebook (see Figure 19)



**<Figure 19 Connecting an Printer>**

2. Connect the printer cable to the parallel port
3. Attach the printer cable to your printer and tighten any retaining screws to ensure a secure connection

□ **Caution** : Overtightening the retaining screws may damage your UC-26KS notebook's connector, the printer's connector, or both.

4. Turn on the printer and any other peripheral devices you have connected to the notebook.

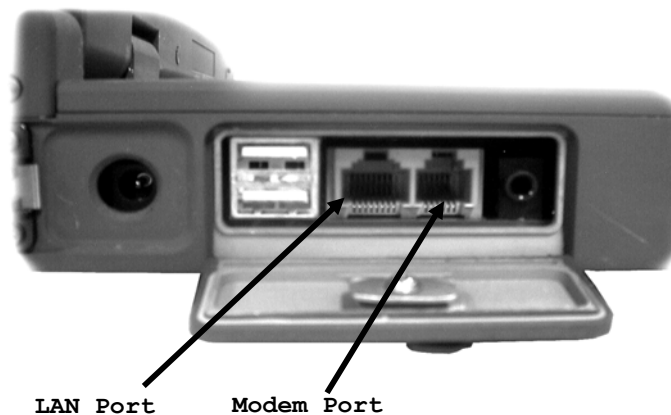
Configure your printer in Window 98. Refer to both your Window 98 documentation and your printer documentation for detailed information.

If necessary, run the BIOS Setup program to configure the parallel port to properly respond to your notebook. See Appendix B, "Using the BIOS Setup Program", for more information.

## Connecting the Modem

To connect your internal modem :

1. Turn your notebook off
2. Locate the Communications Port (see Figure 20)
3. Connect the phone cable to the Communications Port
4. Connect the other end of the phone cable to a phone jack
5. Turn your notebook on



<Figure 20 Connecting to the Modem or a Network>

## Connecting to a Network

To connect your notebook to a LAN :

1. Locate the communications port on the left side of your notebook (see Figure 20)
2. Connect the 10/100BASE-T LAN cable to the communications port
3. Connect the other end of the 10/100BASE-T LAN cable to a network HUB or LAN outlet.

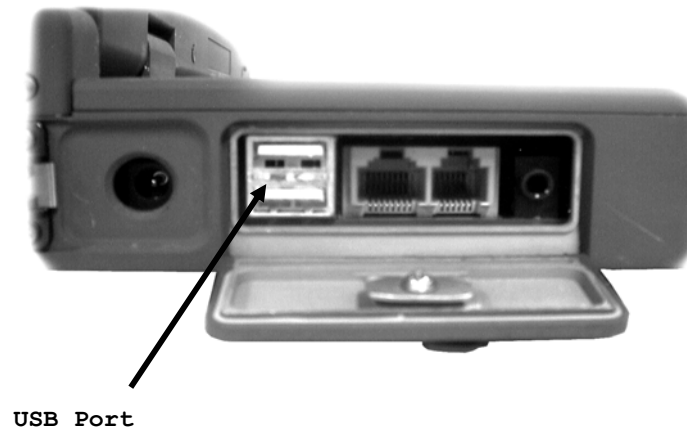
## Connecting USB Devices

You can connect peripheral devices that meet USB specifications to your UC-26KS rugged notebook.

To connect a USB device :

1. Locate the USB port on the left side of your notebook (see Figure 21)
2. Open the flap covering the USB port by gently inserting your finger under the right side of the flap
3. Connect one end of the USB cable to your USB device

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4. Connect the other end of the USB cable to your USB device
  5. Turn on the USB peripheral device



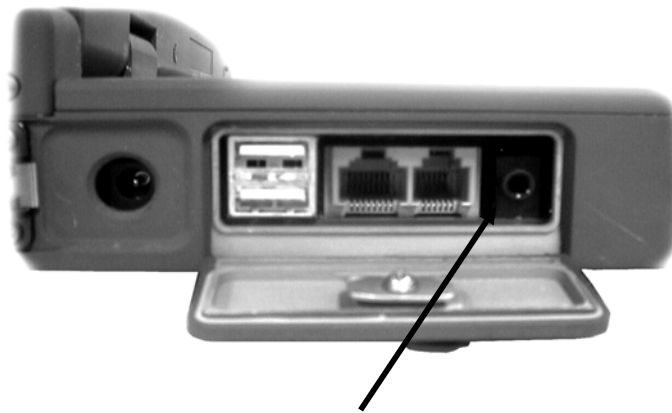
<Figure 21 Connecting USB Devices>

## Connecting external speakers

Your UC-26KS rugged notebook is equipped with Sound Blaster Pro-compatible sound features. You can listen to audio with the built-in speakers, or you can attach external speakers or headphones to your notebook.

To connect speakers to your notebook :

1. Locate the External Audio Jack on the right side of your notebook (see Figure 22)



**External Audio Jack**

**<Figure 22 Connecting External Audio Jack>**

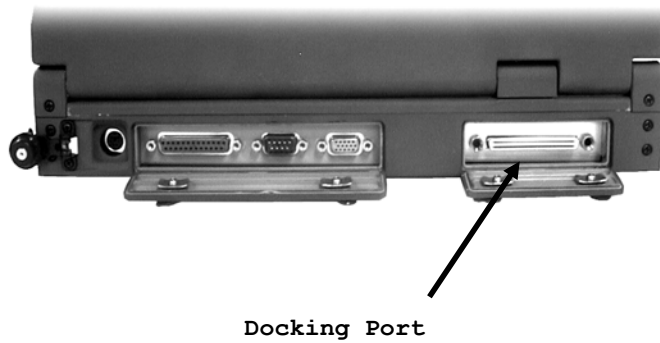
2. Connect the headphone or speaker cable to the External Audio Jack

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## Connecting the Docking Port

Your UC-26KS rugged notebook is designed to connect to an advanced port replicator. The advanced port replicator enables you to connect several external devices to the notebook at one time. This feature provides you with equivalent PC/Desktop cable management capabilities.

Figure 23 shows the connector for the advanced port replicator.



<Figure 23 Docking Port>



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## Installing Optional Internal Devices

In this section, you will learn how to install optional internal devices for your UC-26KS rugged notebook. PCMCIA cards accommodate expansion options, such as a memory card, a modem, an external hard disk, or a network adapter. Your UC-26KS rugged notebook provides two PCMCIA slots(1 and 2) that can receive two Type □ PCMCIA-compatible cards, or one Type □ PCMCIA-compatible card.

### Installing PCMCIA Expansion Cards

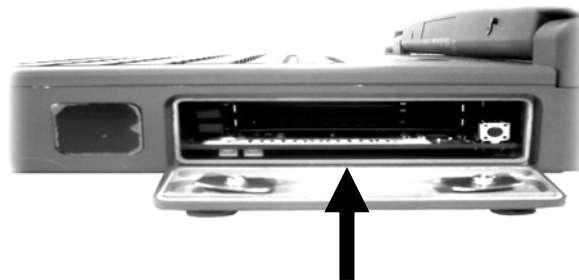
The PCMCIA-compatible card slots are located on the right side of the UC-26KS rugged notebook.

To insert a PCMCIA-compatible card :

1. Turn your notebook off
2. Open the PCMCIA card slot cover on the right side of your notebook (see Figure 24)
3. Hold the PCMCIA-compatible card with the arrow side up and the connector side pointed toward the socket
4. Insert the card into the appropriate slot (The top is slot 1, the bottom slot is slot 2.)

**NOTE :** When the card is fully seated, the black eject button located on the right side of the socket will pop out. There are two eject buttons, one per slot.

5. Turn your notebook on



<Figure 24 Inserting a PCMCIA Card>

To remove a PCMCIA-compatible card press the appropriate eject button. The PCMCIA card is ejected from the socket. Eject only one card at a time.

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# **Rugged Notebook UC-26KS**

## **The Power System**

CHAPTER

**5**

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## 5. The Power System

This chapter discusses the three power system elements of your UC-26KS notebook.

- AC adapter
- Battery pack
- Power Management program

Your UC-26KS rugged notebook's built-in power management feature completely control the computer's power consumption and extend the life of the battery between charges.

You can set and control your notebook's power management features through the power menu of the BIOS setup program.

You can also use hot keys to activate power saving features.

### AC Adapter

The AC adapter performs two importance functions:

- Converts AC current into the DC current used by your notebook
- Charges the battery pack

- **Caution :** Your UC-26KS rugged notebook comes with its own AC adapter.
- Do not use different AC adapter to power the computer.  
This can seriously damage your notebook.
    - Do not use the notebook's AC adapter to power other electrical devices.
      - Do not disassembly any portion of the AC adapter or the AC adapter cable.

If the AC adapter is not working, check connector to see whether it is properly connected.

If everything is connected properly you may need to replace the adapter Consult your UC-26KS customer service representative for assistance.

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## Battery pack

Your UC-26KS rugged notebook comes with a Lithium ion battery.

Before you use your battery pack, you must insert it into one of the adapter cartridges.

The battery pack fits in either FDD Bay or CD/DVD-ROM Bay, depending on which adapter cartridge you use. For extended battery-powered operation, you can insert a second battery pack into your notebook's other bay.

## Battery Pack Maintenance

To maintain your batteries properly, keep the following in mind:

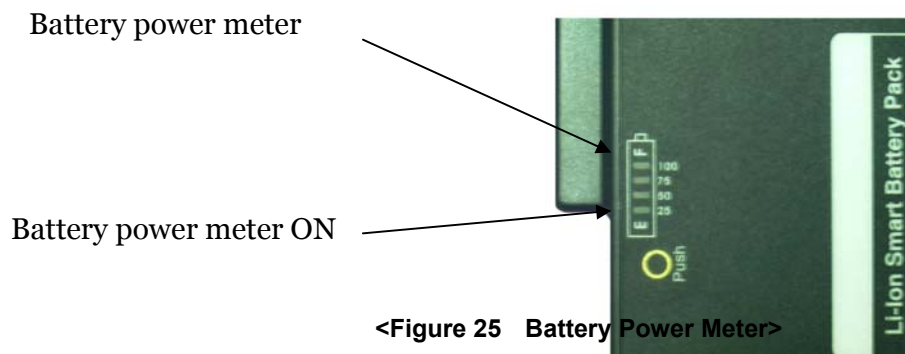
- The battery slowly loses its charge even when the notebook is turned off
- If you do not use a battery pack for an extended period of time, either charge it periodically (at least every two weeks) or remove the battery pack from the notebook.
- When a battery pack no longer provides normal operating time, replace it with a new one.

## Battery Status Indicators

Your UC-26KS rugged notebook provides you with several convenient mechanisms for monitoring the charge status of the battery.

### ▪ Battery Meter

Your notebook's battery comes with a built-in battery meter, similar to the one shown. The meter located on the battery itself.



### ▪ Low Power Indicators

When your notebook's battery is low, the monitor display becomes dim, the LED indicator turns red and the notebook emits two beeps every 3 seconds. And time goes by, beep will be urgent. And then turns off.

## Maximizing Battery pack Life

Using your notebook's power management capabilities and following these power-saving methods can make your battery pack's charge last longer.

- Turn the notebook off when you are not using it.
- Use the notebook's power management functions.
- Closed the display when you not entering data.
- If you use a screen saver, choose one without moving graphics or complex patterns.
- Remove the battery pack from your computer when you are not using the computer for an extended period of time.
- Remove PCMCIA devices when not in use.

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## Power Management

Your UC-26KS rugged notebook features a sophisticated power management system that is designed to conserve power and extend the life of the battery between charges. You can set the power management features to accommodate your specific work requirement. Your notebook has four operating modes :

- Full power
- Devices power down
- System standby
- Suspend

Each power management mode works for both AC and battery powered Operations.

To change your notebook's power management settings, run the power Management Setup in the BIOS setup program.

### Full Power Mode

Your notebook operates in Full Power mode when you select Disabled in the field on the Power Menu.

In the Full Power mode, all power management features are disabled.

Use this mode only when you are operating the notebook with the AC adapter.

### Device Power Down Mode

This operating mode allows you to maximize system performance while saving power with power management features. You can choose from several options to control when the timeout feature automatically powers down certain devices after the specified period of inactivity.

The LCD screen and backlight come on when you use the keyboard or move the pointing device, and the hard disk returns to full power the next time it is accessed. The timeout timer resets when you start using the computer again.

The following table shows the preset timeout periods for specific devices. If a device is not listed, it operates with full power.

Mode	Option	Setting
Maximum Performance	CPU Speed Standby Timeout Hard Disk Timeout Video Timeout	Fast 15 minutes 5 minutes 15 minutes
Maximum Battery Life	CPU Speed Standby Timeout Suspend Timeout Hard Disk Timeout Video Timeout	Power Saving 3 minutes 5 minutes 2 minutes 1 minute

Custom	CPU Speed Standby Timeout Suspend Timeout Video Timeout LCD Brightness Control Audio Power Management PCI Power Management	You can adjust the setting for each option
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## Standby Mode

When you enable your notebook's power management functions in the BIOS setup program, the system automatically enters standby mode when the timeout period elapses.

The following events occur when the system enters standby mode :

- The CPU clock stops
- The LCD screen and backlight turn off
- The hard disk spins down
- The I/O controller enters Power Down mode
- The PCMCIA and VGA controllers enter Power Down mode and Standby mode, respectively.

Any system activity (such as a keystroke) automatically returns the system to Full Power mode. Your system may postpone entering standby mode when it is in the middle of a critical operation, such as reading from or writing to the hard disk.

## Suspend Mode

Suspend mode is the UC-26KS rugged notebook's maximum power-saving mode. When you enable your notebook's power management function in the BIOS Setup program, the system automatically enters Suspend mode when the set Suspend timeout period elapses.

Press POWER BUTTON to manually send the system into Suspend mode.

The following events occur when Save to Disk is Disable, and you system enters Low Power mode or Suspend to RAM mode :

- All data in memory is save to RAM
- All current system states are saved to RAM
- The CPU clock stops
- The LCD screen and backlight turn off
- The hard disk spin down
- The I/O controller enters Power Down mode
- The PCMCIA, VGA, and memory controller enters Power Down mode.

To resume normal usage presse either the Resume or Power button.

The following events occur when Save to Disk parameter is Enabled, and you have an active file or partition on your disk :

- All data in memory is saved to hard disk
- All current system states are saved to the hard disk
- The system power off
- To resume press the power button

### ▪ Suspend precautions

Before switching the system to Suspend mode :

1. Save all open files
2. Do not remove or exchange floppy disks

- 
3. Do not resume Full Power mode if the battery is low. If the battery is too low the system may not be able to fully respond.

While the notebook is in Suspend mode, do not connect or remove any devices (including PCMCIA-compatible cards and memory cards); otherwise, you may damage the computer.

- ❑ **Caution** The system will not switch to either Standby or Suspend mode when :
- USB is enabled
  - IR is enabled
  - There is an active LAN connection
  - CD-ROM auto-insert notification is enabled.

## Resume to Full Power Mode

To switch from Suspend mode to Full Power mode press the Power button. When all devices return to Full Power mode, all data and system states are read from the hard disk and are fully restored.

Full power mode may fail if :

- The battery is low
- The size of system memory has been changed
- The hard disk has been changed

If the system cannot be restored to Full Power mode for any reason, a long warning beep sounds and this message displays :

**System configuration has changed.  
System will not resume from disk.  
(R)eboot or (S)uspend.**

Type R to reboot the computer or S if you want the system to remain in Suspend mode.

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# **Maintenance and Troubleshooting**

## **APPENDIX**

# **A**



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## A . Maintenance and Troubleshooting

This appendix provides you with information on how to keep your UC-26KS rugged notebook in top working condition.

### Operating Environment

When using the notebook, try to ensure that the Temperature, Humidity, Altitude, Shock, Vibration, EMI and Rain& Dust of the Surroundings are within the following ranges:

Temperature	-10 °C to 55 °C (MIL-STD-810E, Method 501.3, 502.3) -30 °C to 55 °C, Built in Flash Disk (option)
Humidity	0% to 95%RH, Non-condensing (MIL -STD-810E, Method507.3)
Altitude	15,000ft (MIL-STD-810E, Method500.3)
Shock	15g, 11ms, half sine wave (MIL-STD-810E, Method516.4)
Vibration	1g, 5~500Hz (MIL-STD-810E, Method514.4)
EMI	MIL-STD-461C
Rain & Dust	4 Inch / hour (MIL-STD-810F, Method506.4)

### Non Operating Environment

Temperature	-32 °C to 70 °C (MIL-STD-810E, Method 501.3, 502.3)
Humidity	0% to 95%RH, Non-condensing (MIL -STD-810E, Method507.3)
Altitude	40,000ft (MIL-STD-810E, Method500.3)
Shock	30g, 11ms, half sine wave (MIL-STD-810E, Method516.4)
Vibration	3g, 5~500Hz (MIL-STD-810E, Method514.4)
EMI	MIL-STD-461C
Rain & Dust	4 Inch / hour (MIL-STD-810F, Method506.4)

### Maintenance

#### The LCD Display

- Avoid scratching the surface of the screen.
- Always lower the display when the notebook is turned off.
- Do not expose the notebook to extreme environment.

---

## Cleaning the Notebook

### Cabinet

Wipe the exterior with a clean, soft, and lint-free cloth. If there is difficulty to remove dirt, apply non-ammonia, non-alcohol based glass cleaner onto the cloth.

An air gun is recommended for cleaning water and dust. For salty water please clean with fresh water then blow-dry with an air gun. Be sure not to turn the computer up side down while there is water being applied.

Always turn OFF the power, unplug the power cord and remove the battery before cleaning.

### Monitor(LCD) Screen

Gently wipe the surface of the screen with a dry cloth.

### IrDA Module

Use a soft dry cloth to wipe the IrDA port. Always keep the IrDA port clean because dust on the port interferes with data transfer.

## Troubleshooting

This section can help you determine the cause of a problem and solve it yourself. If you can't find the answer to your problem here, contact to Manufacturer.

### First steps

If you have problems with your computer, try these things first:

- ☐ Make sure the power adapter is connected to your computer and an AC outlet and that the AC outlet is supplying power.
- ☐ If a peripheral device(such as a keyboard or mouse) does not work, make sure that all connections are secure.
- ☐ Make sure that your hard drive is not too full.
- ☐ If an error message appears on the screen, write down the exact message. The message may help technical support in diagnosing and fixing the problem.
- ☐ If you added or removed modules or peripheral devices, review the installation procedures you performed and make sure you followed each instruction.
- ☐ If an error occurs in a program, consult the printed documentation or the online help for the program.

Do not try to troubleshoot your problem if power cords or plugs are damaged, if your computer was dropped, or if the cabinet was damaged.

Instead, unplug your computer and contact a qualified computer technician

### Symptom: The power switch does not function

The power switch does not accept just a light touch. Press the switch firmly for at least one second. If you are using AC power, check connections and verify the LCD Status window displays the AC adapter icon. If you are using battery power verify the LCD Status window displays the Battery Status icon.

---

## **Symptom: The operating system does not start**

The hard disk or Windows XP may be damaged.

Insert the Windows XP Startup disk you created and reboot the system. Consult your Windows XP documentation for details on using the Startup Disk.

You can reformat a damaged hard disk by executing the FORMAT command stored on the Windows XP Startup disk. Restore the software using the Windows XP Setup disks. If Windows XP is corrupt, reinstall it using the Windows XP Setup disks.

- ❑ **Caution** Using the FORMAT command to format your hard disk drive will erase all the data on your system! Use the FORMAT command as a last resort, only after you have consulted with Manufacturer.

## **Symptom: The computer cannot write to a floppy disk**

The floppy disk could be corrupted with a virus.

The floppy disk may be write protected. Eject the floppy disk and check that the write-protect tab is not set.

The floppy disk may be full. Use another disk.

## **Symptom: The data and time are incorrect**

Use either the Windows XP Control Panel or your notebook's BIOS Setup program to enter the correct date and time.

If the date and time are still incorrect, contact the Manufacturer.

## **Symptom: You cannot recharge the battery**

If the notebook has been left unused for a prolonged period of time, the battery may have become completely discharged. In such cases, you need to connect to the AC adapter for several hours before the battery begins to recharge normally.

## **Symptom: The printer does not operate**

Verify that the printer is turned on.

Verify that the printer is properly connected to the notebook.

Double-click on My Computer, and then click on Printers. Check whether your printer is installed here. If not, click on Add Printer to install your printer.

Double-click on My Computer, and then click on Printers. Check whether the printer output is set to MSFax.

Search the Windows XP Help Index for printer problems.

### **The printer will not turn on**

- Make sure the power cable is plugged into an AC power source.

### **The printer is on but will not print**

- Check the cable between the printer and the computer. Make sure it is connected to the proper port.
- Many printers have an online/offline button that you may need to press so it can start printing. Press the button.
- Check the connector and cable for bent or broken pins.
- Reinstall the printer driver. Use the manual that came with your printer for instructions on installing the printer driver.
- If the printer you want to print to is not the default printer, make sure you have selected it in the printer setup.

### You receive a "Printer queue is full" error message

- Make sure the printer is not set to work offline.
- Wait until files have been printed before sending additional files to the printer.
- If you print large files or many files at one time, you may want to add additional memory to the printer. Consult the printer documentation for instructions for adding additional memory.

#### To make sure the printer is not set to work offline:

1. Click Start , then select Settings, then Printer.
2. Double -click the icon for the printer you want to use.
3. Select Printer . If there is a Use Printer Offline option on the menu, click to clear the check mark.

### You receive a "Printer is out of paper" error message

- After adding paper, make sure the printer is online. Most printers have an online/offline button that you need to press after adding paper.

### Symptom: The IR Communications will not function Properly

Ensure that you performed the IrDA setup procedure.

Check the IR Protocol field in the Setup program.

Check that the IrDA port is not dirty.

Check the distance between the notebook and the other device. If there is less than four inches between them, data transfer may not work well. Adjust the distance and try again.

### Symptom: CD/DVD drive does not operate

#### The computer does not recognize a disc or the CD/DVD drive

- The disc may not be properly seated in the tray. When you place a disc on the tray, make sure that you press the disc firmly onto the spindle so that the retaining clips

#### A DVD movie will not play

- Make sure the label is facing up.
- Press the eject button on the tray, then press the disc firmly onto the spindle so that the retaining clips
- Make sure the disc label is facing up.

**To clean a CD or DVD:** Occasionally discs are flawed and cannot be read by the drive.

**Wipe from the center outwards, edge to edge in a circular circle, using a product made especially**

**for this purpose.** Shut down and res

Shut down and res

#### An audio CD does not

- Make sure the CD is
- Click the speaker icon
- Make sure mute control
- Make sure the volume controls are
- Make sure the disc label is facing up.

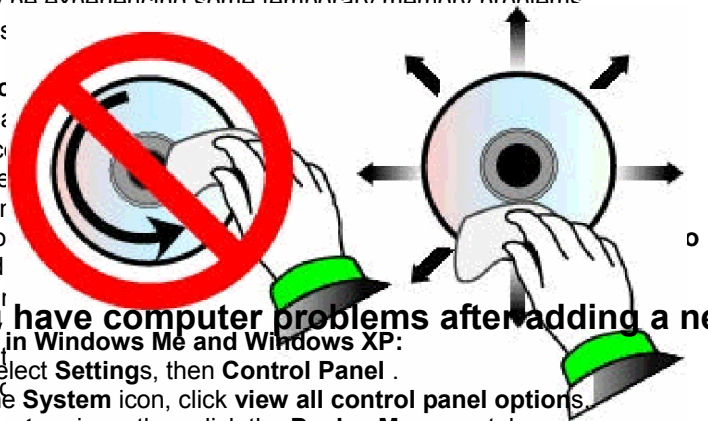
### Symptom: You have computer problems after adding a new device

To check IRQ usage in Windows Me and Windows XP:

1. Click Start , then select Settings, then Control Panel .
2. If you do not see the System icon, click view all control panel options.
3. Double -click the System icon, then click the Device Manager tab.

The Device Manager opens.

4. Click Computer , then click Properties . The Computer Properties dialog box opens and displays the IRQs and their hardware assignments



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#### To free IRQ resources for the new device in Windows Me and Windows XP:

1. Click **Start**, then select **Settings**, then **Control Panel**.
2. If you do not see the **System** icon, click **view all control panel options**.
3. Double-click the **System** icon, then click the **Device Manager** tab. The Device Manager opens.
4. Check the device properties for a resource conflict. A resource conflict appears as a black exclamation point in a yellow circle.

#### Symptom : Diskette Drive is error message

5. Remove the device you are trying to install.
  6. Determine which one of your ports you can temporarily disable. For example, you can disable the parallel port.
  7. In the Device Manager, double-click **Ports**, click the port you want to disable, then click **Properties**.
  8. In the **Device usage** area, click to select the **Disabled in this hardware profile** check box, then click **OK**.
  9. When you are finished using the device, return to the Device Manager and enable the port by clicking to clear the **Disabled in this hardware profile** check box.
- The diskette may be full. Delete unnecessary files on the diskette and try again.
  - Not all diskettes are IBM-compatible. Make sure the diskette you are using is IBM-compatible.
  - Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.

#### You receive a "Disk is full" error message

- Delete unnecessary files on the diskette.
- Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.
- Run ScanDisk on the diskette. If errors are detected and corrected, try using the diskette again.

#### You receive a "Non-system disk" or "Disk error" error message

- Eject the diskette from the diskette drive, then press **Enter**.
- Make sure the diskette you are using is IBM-compatible.

#### The light on the diskette drive is lit continuously

- Remove the diskette from the drive. If the light stays on, try restarting your computer.

### Symptom : File management was accidentally deleted

#### To restore files that were deleted in Windows:

1. Double-click the **Recycle Bin** icon.
2. Right-click the file you want to restore, then select **Restore**.
3. The file is restored to the place where it was originally deleted from.  
If the Recycle Bin was emptied before you tried to restore a file, the file cannot be recovered.

### Symptom : Hard drive is error message

#### You receive an "Insufficient disk space" error message

- Delete unnecessary files from the hard drive using Disk Cleanup.
- Empty the Recycle Bin by right-clicking the **Recycle Bin** icon and selecting **Empty Recycle Bin** from the pop-up menu.

#### The hard drive cannot be accessed, or you receive a "General failure

#### reading drive C" error message

- If possible, save your files to a diskette or another drive.
- If the hard drive is full, copy any files not regularly used to diskettes or other backup media, then delete them from the hard drive.
- Make sure that the hard drive is correctly installed (may not be applicable for your computer model). Remove it and then firmly reinsert it, then restart your computer. For more information on installing a hard drive, see your user's manual.
- If your computer has been subjected to static electricity or physical shock, you may need to reinstall the operating system.

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**You receive a "Data error" message**

- This may be the result of a defective area on the hard drive.  
To fix hard drive problems, run the ScanDisk program.

**Sympton : Internet does not operate****You cannot connect to the Internet**

- Make sure your computer is connected to the telephone line and the telephone line has a dial tone. Use the Setup poster to make sure that the connections have been made correctly.
- If you have the call waiting feature on your telephone line, make sure it is disabled.
- Make sure your account with your Internet Service Provider (ISP) is set up properly. Contact your ISP technical support for help.
- Make sure you do not have a problem with your modem.

**Connecting to a Web site takes too long**

- The condition of the telephone lines and switches at your local telephone company.
- The condition of the Internet computers to which you connect and the number of users accessing those computers.
- The complexity of graphics and multimedia on Web pages.
- Having multiple Web browsers open, performing multiple downloads, and having multiple programs open on your computer.

**Sympton : Keyboard does not operate****The external keyboard does not work**

- Make sure the keyboard cable is plugged in correctly.
- Try a keyboard that you know works to make sure the keyboard port works.

**"Keyboard stuck" or "Key failure" error message**

- Make sure that nothing is resting on the keyboard.
- Make sure a key is not stuck. Press each key to loosen a key that might be stuck, then restart the computer.

**Sympton : The pointing area is not correct**

- Change the screen area and color depth from the Display Properties dialog box. For instructions to change the color depth and screen area.

**Sympton : Modem does not operate****Your modem does not dial or does not connect**

- Make sure your computer is connected to the telephone line and the telephone line has a dial tone. Use the Setup poster to make sure that the connections have been made correctly.
- Make sure that the modem cable is less than 6 feet (1.8 meters) long.
- Remove any line splitters or surge protectors from your telephone line, then check for a dial tone by plugging a working telephone into the telephone wall jack.
- If you have additional telephone services such as call waiting, call messaging, or voice mail, make sure that all messages are cleared and call waiting is disabled before using the modem. Contact your telephone service to get the correct code to temporarily disable the service. Also make sure the modem dialing properties are set appropriately.
- Disconnect any answering machine, fax machine, or printer that is on the same line as the modem. You should not have these devices plugged into the same telephone line as the modem.
- Make sure that you are not using a digital, rollover, or PBX line. These lines do not work with your modem.

### **Your Modem does not dial or does not connect**

- Check for line noise (scratchy, crackling, or popping sounds).  
Line noise is a common problem that can cause the modem to connect at a slower rate, abort downloads, or even disconnect.  
The faster the modem, the less line noise it can tolerate and still work properly.
- Try another telephone line (either a different telephone number in your house or a telephone line at a different location). If you can connect on this line, call your telephone company.
- Try connecting with the modem at a lower connection speed.  
If reducing the connect speed lets you connect, contact your telephone company.  
The telephone line may be too noisy.

### **You cannot connect to the Internet**

- The ISP may be having technical difficulties. Contact your ISP technical support for help.
- See if the modem works with a different communications program. The problem may be with just one program.

### **The modem is not recognized by the computer**

- Make sure the line connected to the modem is working and plugged into the appropriate port on the modem. Use the Setup poster to make sure that the connections have been made correctly.
- If the modem shares the telephone line with another device, make sure the telephone line is not in use (for example, someone is on the telephone, or another modem is in use).
- Use the modem cable that came with your computer. Some telephone cables do not meet required cable standards and may cause problems with the modem connection.
- Shut down and restart your computer.
- Reinstall the device driver
- Run Windows modem diagnostics.
  - Close all open programs.
  - Click **Start**, then select **Settings**, then **Control Panel**. The Control Panel opens.
  - If you do not see the **Modems** icons, click **view all control panel options**.

### **You received an "Unable to establish protocols" error message**

- Double-click the **Modems** icon. The Modems Properties dialog box opens.
  - Click the **Diagnostic** tab, click the COM port next to the name of the modem, then click **More Info**. The Modem Info dialog box opens.
- Reinstall dial-up networking and dial-up networking components.
  - Click **Start**, then select **Settings**, then **Control Panel**. The Control Panel window opens.
  - Click/Double-click the **Add/Remove Programs** icon, then click the **Windows Setup** tab.
  - Double-click **Communications**.
  - Click to clear the **Dial-Up Networking** check box, then click **OK** twice. The System Settings Change dialog box opens.
  - Click **OK**. The computer restarts.
  - Click **Start**, then select **Settings**, then **Control Panel**. The Control Panel window opens.
  - Click/Double-click the **Add/Remove Programs** icon, then click the **Windows Setup** tab.
  - Double-click **Communications**.
  - Click to select the **Dial-Up Networking** check box, then click **OK** twice. The System Settings Change dialog box opens.
  - Click **Yes**. The computer restarts.

## **Sympton : Others error**

### **You are not getting sound from the speakers**

- Make sure the Windows volume control is turned up by clicking the taskbar speaker icon.
- Make sure that the **Mute** option is not selected.

#### The screen is too dark

- Adjust the brightness controls using the function keys on keyboard.

#### The external monitor is not working

- Make sure that the monitor power is turned on and that the video cable is properly connected.

#### The LCD panel has pixels that are always dark or too bright

- This condition is normal and inherent in the TFT technology used in active-matrix LCD screens. The inspection of factory standards keep these to a minimum. If you feel these pixels are unacceptably numerous or dense on your display, contact Technical Support to identify whether a repair or replacement is justified based on the number of pixels affected.

## BIOS Messages

After System Reset and Initialization, the BIOS enter the POST (Power On Self Test) phase. POST is a self-diagnostic process in which the system checks itself for problems. During the POST phase, Phoenix BIOS 4.0 displays a variety of the following diagnostic messages on the screen. These include both progress messages and error messages that only appear if a problem is discovered. Table 1 shows the BIOS messages that may occur during the POST phase and their meanings.

Table 1 POST Phase BIOS Messages

BIOS	Message	Meaning
0200:	Failure Fixed Disk	A problem has been detected with the hard disk
0210:	Stuck Key	A problem has been detected with the keyboard operation (Stuck key)
0211:	Keyboard error	A problem has been detected with the keyboard connection
0212:	Keyboard Controller Failed	A problem has been detected with the keyboard controller
0213:	Keyboard locked-Unlock key switch	The keyboard is locked
0220:	Monitor type does not match CMOS-Run SETUP	BIOS settings do not match actual monitor - Fix with BIOS Setup
0230:	System RAM Failed at offset: yyyy	A problem has occurred with the System RAM memory
0231:	Shadow Ram Failed at offset: yyyy	A problem has occurred with the Shadow RAM memory
0232:	Extended RAM Failed at offset: yyyy	A problem has occurred with the Extended RAM memory
0250:	System battery is dead-Replace and run SETUP	The backup battery is dead-Replace it and run the BIOS Setup Program again
0251:	System CMOS checksum bad -Default configuration used.	A problem has been detected with the CMOS RAM data-Default values have been used for some settings.
0260:	System timer error	A problem has been detected with the system timer
0270:	Real time clock error	A problem has been detected with the RTC
0271:	Check date and time settings	Date and time settings have not been done



0280: Previous boot incomplete –Default configuration used	The last boot did not finish normally - Default values have been used for some settings
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BIOS Message	Meaning
0281: Memory Size found by POST differed from EISA CMOS	Memory size detected by POST did not match the contents of EISA CMOS
02B0: Diskette drive A error	A problem has been detected with floppy drive A
02B1: Diskette drive B error	A problem has been detected with floppy drive B
02B2: Incorrect Drive A type run SETUP	Floppy drive A needs to be redefined in BIOS Setup
02B3: Incorrect Drive B type run SETUP	Floppy drive B needs to be redefined in BIOS Setup
02D0: System cache error – Cache disabled	A problem has been detected with the system cache
xxxx address conflict	Conflict has been detected between internal & external I/O addresses
Allocation Error for xxxx	An allocation error has occurred in the resource with the device displayed in xxxx
Configuration error device disabled	A configuration error has occurred - The device has been disabled
Device configuration changed	The configuration of the I/O device has been changed
Entering SETUP ...	Starting the BIOS Setup utility
Failing Bits: xxxx	An error has occurred during the memory test at the address displayed in xxxx
Fixed Disk n:	Hard disk number n (0 ~ 3) has been detected
Invalid System Configuration Data – run configuration utility	The system configuration values are not correct
IO device IRQ conflict	Conflict has been detected between I/O IRQs
Keyboard Detected	The keyboard has been detected
Mouse initialized	The mouse has been initialized
nnnnM Extended RAM Passed	Extended RAM testing has finished
nnnnK System RAM Passed	System RAM testing has finished
nnnnM System RAM Passed	System RAM testing has finished
nnnnK Shadow RAM Passed	System RAM testing has finished

BIOS Message	Meaning
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nnnnK Cache SRAM Passed	Cache SRAM testing has finished
Operating system not found	The OS cannot be found - Check that the driver setup is correct
Parity Check 1 nnnn	A parity error has occurred in the system bus nnnn
Parity Check 2 nnnn	A parity error has occurred in the I/O bus nnnn
Press <F1> to resume, <F2> to Setup, <F3> for previous screen	Displayed at the end of the POST phase if an error has occurred - Press <F1> to load the OS, <F2> to activate BIOS Setup, <F3> to activate Setup Utility of the extended BIOS
Press <F1> to resume, <F2> to Setup	Displayed at the end of the POST phase if an error has occurred - Press <F1> to load the OS, <F2> to activate BIOS Setup
Press <F1> to resume, <F3> for Previous screen	Displayed at the end of the POST phase if an error has occurred - Press <F1> to load the OS, <F3> to activate Setup Utility of the extended BIOS Press <F1> to resume
Press <F1> to resume	Press <F1> to load the OS
Press <F2> to enter SETUP	Press <F2> to activate the BIOS Setup
PS/2 mouse configuration error – device disabled	A configuration error has occurred with the PS/2 mouse
UMB upper limit segment address : xxxx	The UMB upper limit segment is xxxx
System BIOS shadowed	The system BIOS is being shadowed
Video BIOS shadowed	The video BIOS is being shadowed

---

# **Using The BIOS Setup Program**

## **APPENDIX**

# **B**

---

## **B. Using the BIOS Setup Program**

All required settings for your UC-26KS rugged notebook were preset at the factory before shipment. As long as you intend to use the UC-26KS rugged notebook without modifying its environment, you do not need to read this chapter.

Your UC-26KS rugged notebook uses the Basic Input and Output System (BIOS) Setup program to store the computer's basic boot-up configuration and power management settings. This chapter describes how to configure and customize your UC-26KS rugged notebook using the BIOS Setup program.

### **What is BIOS Setup?**

BIOS Setup is a program that enables you to reconfigure your hardware environment settings. The UC-26KS Rugged notebook default BIOS settings have been chosen for the purpose of developing UC-26KS rugged notebook / target device embedded system, which means that often there will be no need to use the BIOS Setup Program to alter these settings.

### **When should BIOS Setup be run?**

The BIOS Setup program is likely to be run in the following situation, for example:

- When altering the Power Saving mode settings
- When the POST displays a BIOS Setup related error message

### **How do you use the BIOS Setup Program?**

The BIOS Setup Program is operated using the keyboard.

USB Keyboards are incompatible with the current version of the BIOS setup Program and may not be used.

The BIOS Setup Program may be started, operated and exited as follows:

#### **Starting BIOS Setup**

The BIOS Setup Program may be launched during the POST phase by pressing the <F2> key while the message "Press F2 to enter SETUP" is displayed in the lower left of the screen.

After the BIOS Setup Program starts, the Main menu will be displayed :

**Menu Bar** show the 4 top-level menus  
(Main,Advanced,Power&Exit)

**Help Field** Explains the function of the field under the cursor

Phoenix BIOS Setup Utility	
Main	Advanced Power Exit
<p><b>System Time :</b> [15:19:18]  <b>System Date :</b> [11/152001]</p> <p><b>Legacy Diskette A:</b> [1.44MB 3 1/2"]  <b>Legacy Diskette B:</b> [1.44MB 3 1/2"]</p> <p>▶ <b>Primary Master:</b> [3242MB]          ▶ <b>Primary Slave:</b> [None]</p> <p>▶ <b>Boot Feature:</b></p> <p>▶ <b>Cache Memory</b></p> <p><b>System Memory :</b> 640KB  <b>Extended Memory:</b> 31774KB</p>	<p style="text-align: center;"><b>Item Specific Help</b></p> <p>&lt;Tab&gt;,&lt;Shift-ab&gt;,or &lt;Enter&gt; Selects field</p>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>F1 <b>Help</b> ↑↓ <b>Select Item</b> -/+ <b>Change Values</b>              Esc <b>Exit</b> ←→ <b>Select Menu</b> Enter <b>Select</b> ▶ <b>Submenu</b></p> </div> <div style="width: 45%;"> <p>F9 <b>Setup Defaults</b>              F10 <b>Save and Exit</b></p> </div> </div>	

**Option Field**  
 Each menu has a number of options, some settable A □ to the left of the option name indicates a linked sub menu settable field are shown by enclosing brackets: [xxxxx]

**Cursor**  
 The position of the cursor is shown by the field text being reverse highlighted .

**Key List**  
 List of keys usable in BIOS setup

---

## Operating BIOS Setup

BIOS Setup has four top level menus (Main, Advanced, Power Saving and Exit), each of which contains a number of (settable) fields. Some of the fields have A ☐ mark next to them, indicating a sub-menu is associated with that field. Sub-menus allow further settings.

## BIOS Setup Usable Keys

The BIOS Setup Program displays a list of usable keys at the bottom of the screen:

Legend key	Alternate key	Function
F1	Alt + H	Displays the General Help screen.
Esc	Alt+X	Exits the current menu.
↓or↑	Keypad arrow keys	Moves the cursor up and down between fields
←or→	Keypad arrow keys	Selects a different menu
Tab		Moves the cursor forward through the field. If the field has only one value
Shift + Tab		Moves the cursor backward through the field. If the field has only one value, the Shift + Tab are only available for System Time and System Date.
Home	PgUp	Moves the cursor to the field at the top of the window.
End	PgDn	Moves the cursor to the field at the bottom of the window.
F5	- (minus key)	Scrolls backward through the values for the highlighted field.
F6	+ or space	Scrolls forward through the values for the highlighted field.
F9		Gives the option to reset the default values.
F10		Sets current parameters and exits BIOS setup.
Enter		Executes commands or selects a submenu

---

## Changed BIOS Setup Settings

If settings are changed, the new values must be either saved or discarded before the BIOS Setup Program is exited.

### Reverting all settings to their default values at once

Follow the procedures below.

1. At the Exit menu, select "Load Setup Defaults"
2. Press the <Enter> key - the message "Load default configuration now? Yes/No" will be displayed
3. Select "Yes" and press the <Enter> key - all settings are returned to their default values

### Reverting all settings to their saved values at once

Follow the procedures below.

1. Bring up the Exit menu
2. Select "Discard Changes" option
3. Press the <Enter> key - the message "Load previous configuration now? Yes/No" will be displayed
4. Select "Yes" and press the <Enter> key - all settings have been reverted to their saved values

### Saving changed settings to CMOS RAM

Changed settings may be saved at any time from the Exit menu:

1. Bring up the Exit menu
  2. Select the "Save Changes" option
  3. Press the <Enter> key - the message "Save configuration changes now? Yes/No" will be displayed
  4. Select "Yes" and press the <Enter> key. This saves all the BIOS setup Program settings to CMOS RAM.
- BIOS Setup remains open, and further changes can be made.

### Exiting the BIOS Setup Program

When exiting the BIOS Setup Program any unsaved changes must be either saved or discarded:

## Saving changes and exiting the BIOS Setup Program

1. Press the <Esc> key (twice if from a sub-menu) to bring up the Exit menu
2. Select "Exit Saving Changes" option
3. Press the <Enter> key - the message "Save configuration changes and exit now? Yes/No" will be displayed
4. Select "Yes" and press the <Enter> key

## Exiting the BIOS Setup Program without saving changes

1. Press the <Esc> key (twice if from a sub-menu) to bring up the Exit menu
2. Select "Exit Discarding Changes" option
3. Press the <Enter> key - the message "Configuration has not been saved! Save before exiting? Yes/No" will be displayed
4. Press the < → > cursor key to select "No" and press the <Enter> key.  
If you select "Yes", the changed settings will be saved to CMOS RAM.

## Starting-up the BIOS Setup Program at Quiet Boot

With Phoenix Quiet Boot, the normal POST phase diagnostic messages can be suppressed. In their place, a logo screen can be displayed until the operating system has loaded.

Quiet Boot is set in the Boot Feature sub-menu in the Main Menu of the BIOS Setup. When the Boot-Time Diagnostic Screen is set to disabled, the Quiet Boot screen will be displayed instead of the POST phase diagnostic message.

When Quiet Boot is set to Enabled:

- If the <Esc> key is pressed during the POST phase, then the normal diagnostics are displayed. If the <F2> key is pressed instead, then the BIOS Setup Program is loaded.
- If a POST error occurs, then the message "Press <F1> to resume, <F2> to SETUP" is displayed and the system waits for key input.
- If the Extended ROM-BIOS settings are such that a response is required, Quiet Boot quits and the key request is shown on the normal POST screen.

## Main Menu

Main	Advanced Power Exit	
	System Time : [15:19:18] System Date : [11/152001]	Item Specific Help
	Legacy Diskette A: [1.44MB 3 1/2"] Legacy Diskette B: [1.44MB 3 1/2"]	<Tab>,<Shift-ab>,or <Enter> Selects field



- 
- System Time    Hour : Minute : Second fields. Directly input the desired value, using <Tab> or <Enter> to move between the fields.
  - System Date    Month/Day/Year fields. Directly input the desired value, using <Tab> or <Enter> to move between the fields.
  - Legacy Diskette A    Used to disable/enable floppy drive A. Only 3.5" 1.44MB floppy drives may be used. Note that 1.44MB drives typically support 720KB disks as well.
    - Disabled        No floppy drive
    - 1.44MB 3½    Enable a 3.5" 1.44MB floppy drive
  - Legacy Diskette B    Used to disable/enable floppy drive B.  
Only 3.5" 1.44MB floppy drives may be used.
  - Primary Master        Sub-menu to access a variety of Master Drive hard disk type settings (size, number of cylinders, transfer mode, etc.).
  - Primary Slave        Sub-menu to access a variety of Slave Drive hard disk type

---

settings(size, number of cylinders,transfer mode, etc.).

- **Boot Feature**      Sub-menu to determine the start-up drive and access other Boot Option settings.

## **Main Menu Sub-Menus**

### **Hard Disk Detailed Settings**

- **Type**

Determines the connection status as well as the parameters of the Hard Disk:

- **Auto**      If this option is used, the connection status and hard Disk Type are automatically determined. If connection has been confirmed, the various parameters (No. of Cylinders, No. of Heads and No. of Sectors) will be automatically set by the hard disk information. The drive type and manufacturer will be displayed during POST.
- **None**      No Hard Disk connected
- **CD-ROM**    CD-ROM (IDE) connected
- **User**      Manually enter various Hard Disk parameters (No. of Cylinders, No. of Heads and No. of Sectors)

- **Multi-Sector Transfers**

Determines how many sectors of data each transfer contains. These settings are available if the "Type" option is set to "CD-ROM" or "User":

- **Disabled**      Transfer in 1 sector units
- **2 Sectors ~**    Select the number of sectors per transfer
- **16 Sectors**    A higher number gives faster transfer rates, but the hard Disk Cache size may limit the effect

- **LBA Mode Control**

Determines whether Logical Block Addressing is used or not. These settings are available if the "Type" option is set to "CD-ROM" or "User":

- **Disabled**    Don't use LBA Mode
- **Enabled**    Use LBA Mode (this setting requires that the hard disk be LBA capable)

- **32-Bit I/O**

Determines whether 32-Bit I/O is used or not between the CPU and internal IDE controllers. These settings are available if the "Type" option is set to "CD-ROM" or "User":

- 
- Disabled Don't use 32-Bit I/O
  - Enabled Use 32-Bit I/O

- Transfer Mode

Determines the transfer mode. These settings are available if the "Type" option is set to "CD-ROM" or "User".

A higher number gives a faster transfer rate, but the hard Disk must support the selected transfer modes.

- Standard Set PIO Mode to 0
- Fast PIO 1 ~ 4 Selects Fast PIO Mode 1 through 4
- FPIO3/DMA1 Uses either Fast PIO Mode 3 or DMA1 Mode 1
- PIO4/DMA2 Uses either Fast PIO Mode 4 or DMA2 Mode 2

- Ultra DMA Mode

Determines whether Ultra DMA Transfer mode (as defined by the ATA 4 standard) is used or not:

- Disabled Don't use Ultra DMA mode
- Mode 0~2 Select Ultra DMA Transfer mode (To set the Ultra DMA mode Hard Disk must support Ultra DMA)

---

## Boot Feature Settings

- **Boot sequence** Defines the start-up drive:
  - A: then C: Try to start-up from drive A. - If unsuccessful (no OS), try drive C.
  - C: then A: Try to start-up from drive C: - If unsuccessful (no OS) then try drive A:
  - C: only Try to start-up from drive C: only
- **Boot-time Diagnostics Screen**  
Determines whether diagnostics screens or messages are displayed or not during the POST phase:
  - Enabled POST diagnostics are displayed normally
  - Disabled Quiet Boot suppresses the normal POST phase diagnostic messages, displaying a logo screen in their place

### Quick Boot Mode

Selects whether to use Quick Boot or not:

- Enabled Shortens time needed for POST checking by skip-ping/reducing the memory tests, etc.
- Disabled Performs normal POST checking

## Cache Memory Settings

- **External Memory**  
Selects whether to use secondary caching (L2-Cache) or not
  - Disabled Don't use L2-Cache
  - Enabled Use L2-Cache
- **Cache System BIOS area**  
Selects whether the System BIOS area is cached or not
  - Disabled System BIOS area is not cached
  - Enabled System BIOS area is cached
- **Cache Video BIOS area**  
Selects whether the Video BIOS area is cached or not
  - Disabled Video BIOS area is not cached
  - Enabled Video BIOS area is cached

## Advanced Menu

Main	Advanced	Over Exit
<p>► I/O Device Configuration</p> <p>PS/2 MOUSE[Auto Detect]</p> <p>Installed O/S:[Win95/Win98]</p> <p>Enable ACPI:[Yes]</p> <p>► PCI Configuration</p> <p>Video Output:[CRT &amp; LCD]</p> <p>Hot Plug:[Enabled]</p>		<p><b>Item Specific Help</b></p> <p>Configure COM, IR and Parallel ports.</p>
<p>F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults</p> <p>Esc Exit ←→ Select Menu Enter Select ► Submenu F10 Save and Exit</p>		

- I/O Device Configuration  
Sets the internal I/O port addresses, interrupt levels, etc.
- PS/2 Mouse  
Defines whether a PS/2 Mouse is used or not. Even if set to disabled, the mouse interrupt channel (IRQ12) is not released.
  - **Enabled** PS/2 Mouse used
  - **Disabled** PS/2 Mouse not used
  - **Auto Detect** Mouse automatically detected.
- Installed O/S

---

Identifies whether an OS that supports Plug and Play (e.g. Windows® 95/Windows® 98) is being used or not.

- Win95/Win98      Windows® 95/Windows® 98 used- supports Plug and Play
- Other              Another OS used

- Enable ACPI

Defines whether ACPI Power Management is used or not.

- **Yes**              ACPI used
- **No**                ACPI not used

- PCI Configuration

Assigns the resources for the external PCI slots.

- Video Output

Defines the Video output. When displaying to a LCD the possible screen resolutions will depend on the available LCD resolutions.

E.g: for a 640 × 480 only LCD the 800 × 600 and 1024 × 768 screen settings may not be used:

- **CRT & LCD**              Use both CRT & LCD
- **CRT only**                Use CRT
- **LCD only**                Use LCD

- Hot Plug

Defines whether the keyboard controller's PS/2 Hot Plug capability for plugging a PS/2 keyboard or mouse is used or not.

- **Enabled**              Hot Plug used
- **Disabled**            Hot Plug not used

---

## Advanced Menu Sub-Menus

### I/O Device Configuration Settings

- COM Port A

Defines the I/O port address and IRQ (interrupt level) for serial port A.

- Enabled Internal serial port A is used. The following options appear when the Enabled setting is selected:

- Base I/O Address & IRQ**

- Any of the following four combinations of Base I/O addresses and IRQs may be selected:

- 3F8h**, IRQ4

- 2F8h**, IRQ3

- 3E8h**, IRQ4

- 2E8h**, IRQ3

- Auto Internal serial port A is used. One of the Base I/O Address & IRQ combinations is selected automatically.

- Disabled Internal serial port A is not used

- COM Port B / IR Port

Defines the operation mode, I/O port address and IRQ (interrupt level) for serial port B. Since serial port B can also be used as an IrDA port, its operating mode should also be set.

- Enabled Internal serial port B is used. The following options appear when the Enabled setting is selected:

- Mode** Sets the operating mode of serial port B.

- Serial** Operates in the COM port mode

- SIR** IrDA (SIR) mode

- FIR** IrDA (FIR) mode

- Base I/O Address & IRQ**

- The same four combinations of Base I/O Address & IRQ as for the COM port A.

- DMA Channel**

- Specifies the DMA channel. DMA channel options are activated only when FIR mode has been selected in the Mode section.

- DMA1** DMA channel 1 used

- DMA3** DMA channel 3 used

- 
- Auto Internal serial port B is used. Under Auto mode, you only select the operation mode. The Base I/O address & IRQ setting is automatically selected from the same combinations as for the COM port A. DMA channel 1 or 3 is automatically selected for the FIR mode.

**Mode** Same options as found in the Enabled mode.

- Disabled Internal serial port B is not used.

#### ▪ Parallel Port

Defines the operation mode, I/O port address and IRQ (interrupt level) for the parallel port.

- Enabled Internal parallel port is used. The following options appear when the Enabled setting is selected:

Mode Selects the operating mode of the internal parallel port.

**Bi-directional** Operates in bi-directional mode

**ECP** Operates in ECP mode

**EPP** Operates in EPP mode

**Output Only** Operates in unidirectional mode

#### **Base I/O Address & IRQ**

Any of the following combinations of Base I/O addresses and IRQs may be selected. This set-ting is available if the mode is set to "Bi-directional", ECP" or "Output only":

**278h**, IRQ5

**378h**, IRQ7

**378h**, IRQ5

#### **DMA Channel**

Selects the DMA channel. DMA channel options are activated only when ECP mode has been selected in the Mode section.

**DMA 1** DMA channel 1 used

**DMA 3** DMA channel 3 used

- Auto Internal parallel port is used. Under Auto mode, you only select the operation mode. Base I/O address, IRQ, and DMA channel settings are automatically selected from the options described above. DMA channel 1 or 3 is automatically selected for the ECP mode.

**Mode** Same options as found in the Enabled mode.

- Disabled The internal parallel port is not used.

### **PCI Device, Slot Settings**

- Option ROM Scan



---

Defines whether or not the option ROM mounted on the PCI device is scanned.

- **Enabled**            Scan the optional ROM
- **Disabled**        Do not scan the optional ROM

- Enable Master

Defines whether or not to use the connected device as a PCI bus master device.

- **Enabled**            Use as a bus master device
- **Disabled**        Do not use as a bus master device

- Latency Timer

Defines the usage priority of the PCI bus when the connected device is used as a PCI bus master device.

- **Default**            Standard priority
- **0020h ~ 00E0h**    Define priority based on the value of the PCI bus clock.  
For a high speed device, better performance is realized  
with higher values.

## PCI/PNP ISA IRQ Resource Exclusion Settings

- IRQ n

Allows ISA interrupts IRQ 10 and/or IRQ 11 to be reserved for use by a connected X-Bus slot Legacy ISA device or Card Bus slot Legacy PC Card.

- Available**            IRQ not reserved
- Reserved**            IRQ reserved

## Power Menu

Main   Advanced	Power	
<b>Power Savings :[ Disabled ]</b>  <b>Idle Mode :[ Off ]</b> <b>Standby Timeout :[ Off ]</b> <b>Auto Suspend Timeout :[ Off ]</b> <b>Suspend Mode :[ Suspend ]</b>  <b>Resume On Modem Ring :[ Off ]</b> <b>Resume On Time :[ Off ]</b> <b>Resume Time :[ 00:00:00 ]</b>  <b>Thermal Temperature Setting :86.0°C/81.0°C</b> <b>Thermal Throttle Mode :Enabled</b> <b>Thermal Throttle Duty :25%</b>		<b>Item Specific Help</b>  Select Power Management Mode. Choosing modes changes system power management settings. Maximum Power Savings conserves the greatest amount of system power while Maximum Performance conserves power but allows greatest system performance. To alter these settings, choose Customize. To turn off
F1 <b>Help</b> ↑↓ <b>Select Item</b> -/+ <b>Change Values</b> F9 <b>Setup Defaults</b> Esc <b>Exit</b> ←→ <b>Select Menu</b> Enter <b>Select</b> ▸ <b>Submenu</b> F10 <b>Save and Exit</b>		

- Power Savings

Defines the power savings mode used in the APM interface.

- Disabled   Manual Suspend/Resume is possible, but automatic power conservation is turned off

- 
- Customized Allows the various Power Savings parameters to be individually set for the "Idle Mode", "Standby Timeout" & "Auto Suspend Timeout" options.
  - Maximum Performance Sets the Power Savings parameters to maximize performance for the "Idle Mode", "Standby Timeout" & "Auto Suspend Timeout" options.
  - Maximum Power Saving Sets the Power Savings parameters to minimize power consumption for the "Idle Mode", "Standby Timeout" & "Auto Suspend Timeout" options.
- Idle Mode

If this mode is selected, the system will enter Idle Mode after no key inputs or data I/O occurs for 1 minute. In Idle Mode the CPU clock speed is reduced.

**On** Idle Mode can be entered

**Off** Idle Mode is disabled
  - Standby Timeout

Determines the elapsed time with no key inputs or data I/O the system will wait before entering Standby Mode. In Standby Mode the display is turned off and the Hard Disk spun down.

**1 ~ 16 Minutes** Time to wait before entering Standby Mode

**Off** Standby Mode is disabled
  - Auto Suspend Time out

Determines the elapsed time with no key inputs or data I/O the system will wait before automatically entering whichever Suspend Mode is currently enabled:

**5 ~ 60 Minutes** Time to wait before entering Suspend Mode.

Either Suspend or Save To RAM may be specified as the Suspend Mode.

**Off** Suspend Mode is disabled. Suspend, Save To RAM, or Save to Disk may be specified as the Suspend Mode.
  - Suspend Mode

Select which Suspend Mode is used.

**Suspend** Saves memory contents to DRAM, then suspends the CPU and various I/O devices.

**Save To RAM** Saves memory contents to DRAM, sets DRAM to self-refresh, then cuts power to the CPU and various I/O devices.

---

**Save To Disk** Saves the memory contents to the Save To Disk area on the Hard Disk, then cuts all power. Compared to Suspend and Save to RAM, this mode uses less power, but takes longer to enter and recover from.

- Resume On Modem Ring

Defines whether or not to resume from Suspend Mode when a ring signal from a modem is detected.

**Off** Resume based on modem ring signal  
**On** Do not resume

- Resume On Time

Defines whether or not to automatically resume from Suspend Mode at a predetermined time.

**Off** Does not resume  
**On** Resumes at defined Resume Time

- Resume Time

Defines when (24-hour:minute:second) to perform the Resume On time. This setting is only valid if the Resume On Time option is enabled. It is ineffective for the Save To Disk Mode

- Thermal Temperature Setting

Shows the overheat alarm and overheat recovery settings.

Currently these are set to 86.0°C/81.0°C, meaning that the CPU is forced to enter Thermal Throttle Mode at 86.0°C and returns to normal operation when the temperature drops to 81.0°C.

- Thermal Throttle Mode

Show whether the Thermal Throttle function is enabled or not.

Currently the Thermal Throttle is always Enabled and this setting cannot be changed.

- Thermal Throttle Duty

Shows the CPU "Duty" ratio after Thermal Throttling has been engaged. This value may not be changed and is currently set to "25%" (of normal), meaning the CPU is slowed down to a 2/8 clock cycle.

## Exit Menu

Main	Advanced	Power	Exit
Exit Saving Changes			Item Specific Help

- 
- Exit Saving Changes  
Saves the settings to CMOS RAM before exiting BIOS Setup Program
  - Exit Discarding Changes  
Exits BIOS Setup without saving any changes
  - Load Setup Defaults  
Returns all settings to their factory default values
  - Discard Changes  
Returns all settings to the values stored in CMOS RAM
  - Save Changes  
Saves the current settings to CMOS RAM

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# **Technical Data**

## **APPENDIX**

# **C**

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## C. Technical Data

This appendix contains important technical data and specifications for the UC-26KS Rugged notebook.

### DMA Channels

Settings	Explanation
01	ESS Allegro-1 Dos Emulation
02	Standard Floppy Disk Controller
03	Direct memory access controller

### System Interrupts

IRQ	Explanation
00	System timer
01	Standard 101/102-key or Microsoft Natural keyboard
02	Programmable interrupt controller
03	Serial Port 2
04	Serial Port 1
05	Sound & Modem system
06	Standard Floppy Disk Controller
07	Parallel Port
08	System CMOS/real time clock
09	Chips and Tech 69030 AGP/PCI & PCMCIA Socket
10	Reserved
11	Reserved
12	Mouse
13	Numeric data processor
14	Intel 82371AB PCI Bus Master IDE Controller
15	IRQ Holder for PCI Steering (e.g., LAN)

---

## I/O Address Map

Address	Device
0000-000F	Direct memory access controller
0020-0021	Programmable interrupt controller
0040-0043	System timer, keyboard controller
0060-006E	System Board
0070-0071	Real-time clock/NM1 mask
0081-008F	Direct memory access controller
00A0-00A1	Programmable interrupt controller
00C0-00DF	Direct memory access controller
01F0-01F7	Intel 82371AB PCI Bus Master IDE Controller
01F0-01F7	Primary IDE controller (dual FIFO)
0220-022F	ESS Allegro – 1 Dos Emulation
02F8-02FF	Communication Port(COM2)
0330-0331	ESS Allegro – 1 Dos Emulation
0378-037F	ECP Printer Port (LPT1)
0388-038B	ESS Allegro – 1 Dos Emulation
03B0-03DF	Chips and Tech 69030 AGP/PCI
03E8-03EF	ESS ES56CVM-PI DATA FAX VOICE MODEM
03F8-03FF	Communication Port(COM1)
0CF8-0CFF	PCI bus
1040-107F	LAN controller
F800-F8FF	ESS Allegro – 1 PCI Audio Drive



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# **Glossary**

## **APPENDIX**

# **D**

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## D. Glossary

### **AC adapter**

A device used for converting and supplying power to the notebook from a wall AC outlet.

### **APM**

The Intel-Microsoft Advanced Power Management Interface is a cooperative interface contained in Windows XP that enhances the built-in power management features of the notebook. Activating APM puts the CPU into a lower state with no loss in notebook performance.

### **Audio line-in jack**

Connects computer to the audio output of peripheral devices, such as a CD or cassette player.

### **Back up**

The process of copying programs and data from the hard disk or floppy disk onto floppy disks or other storage systems. Backup copies can be used to restore the original programs and data if they are damaged or lost.

### **Battery pack**

A battery power source which can be installed in the notebook to enable operations without using power from an AC outlet. Fully charged, the battery pack should last approximately two to four hours, depending on operating conditions.

### **BIOS**

The Basic Input and Output System Setup program stores the computer's basic bootup Configuration and power management settings.

### **Boot**

The processor of loading the initializing program into a computer.

### **CMOS**

Complementary Metal Oxide Semiconductor. Used to store a computer's configuration data. It is also the name of a utility that stores, checks, and restores CMOS settings.

### **Computer virus**

A hazardous computer program that can infect the notebook through a network or floppy disk and damage data.

### **CPU**

Central Processing Unit. The chip that operates the computer.

### **Default**

A Value assumed by the system for any parameter in the absence of a specific value input by the user.

### **Device driver**

A software program that links a peripheral device with an operating system by interpreting and transmitting data so that the operating system knows how to handle the peripheral device.

### **Dialog box**

A boxed area on the computer screen that either provides or requests information.

### **Drag**

A Touch pen and mouse technique for moving information. Hold down the click button and move to the touch pen.

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**EDO DRAM**

Extended Data Output Dynamic Random Access Memory expansion memory module

**Expansion memory module**

An optional module used to expand the notebook's memory.

**External speakers jack**

Connect cable to the audio input of peripheral devices.

**Highlight**

To indicate an item that will be affected by the next actions.

**Hot keys**

Hot-key functions perform specific tasks initiated by the combined input of the **Fn** Key with the **F2** to **F9** keys.

**IDE**

The integrated drive electronics drive is an industry standard for PC hard disk drives. IDE drives provide a reliable, fast, and cost-effective mass storage solution.

**Indicator lamp**

An illumination source that light up icons to indicate the status of notebook power, Hard disk and floppy disk activity, remaining battery power, and so on.

**IrDA**

The Infrared Data Association(IrDA) compliant port allows serial, wireless communications between the Rugged notebook and other devices such as a printer or another computer.

**LCD**

Liquid crystal display.

**LED**

Light emitting diode.

**Line-in jack**

Used to connect a line from the audio output of peripheral devices such as a CD or cassette player.

**Lithium ion**

A battery standard.

**Menu bar**

A bar on the computer screen that shows available menus.

**Mouse cursor**

A cursor that moves on the screen in accordance with corresponding movements of The touchpen or mouse.

**MIDI**

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Musical Instrument Digital Interface. A standard allowing digital electronic instruments, such as an electronic piano keyboard, to interface with a computer and its software.

**NiMH**

Nickel metal hydride, a battery standard.

**Numeric Keypad**

A small-sized keyboard, similar to a calculator, used for entering numeric values.

**Partition**

To divide a single hard disk into several areas. When partitions are created, each Area can be handled as if it were a separate hard disk.

**PC card**

Also called a PCMCIA card. A compact card that can be inserted into the PC card slot, A SCSI card and a LAN card are examples of PC cards.

**PC card slot**

Also called a PCMCIA slot. A compartment with a door in the housing of the notebook designed to hold a PC card.

**PCM audio source**

A type of audio source system that the PCM method to reproduce digital recorded sound.

**PCMCIA**

Personal Computer Memory Card International Association.  
A global standard for PC cards.

**Peripheral**

Any of a number of devices, such as printers, modems, or keyboards, that can be attached to and run by the computer.

**PIO**

Programmable Input/output. A means of data transfer that requires the use of the CPU.

**POST**

Power On Self Test, A test function that a computer performs on its own system When you either turn it on or reset it.

**RAM**

Random-Access Memory. A type of internal memory used for the temporary storage of information. You can alter the information stored in RAM. Information in RAM is lost when you turn your computer off.

**Reset**

To restart notebook without turning off the power. Press **Ctrl+Alt+Del** to reset your system.

**ROM**

---

Read Only Memory. A type of internal memory that contains permanent instructions for your computer's system. You cannot alter things stored in ROM. Information in ROM is retained when you turn your computer off.

**SCSI**

Small Computer System Interface. One of the standard used for connecting the notebook with a peripheral device such as a printer.

**SDRAM**

Synchronous Dynamic Random Access Memory. New technology which provides increased performance over EDO DRAM.

**Standby mode**

One of the notebook's power management functions. In Standby mode, the CPU clock stops, the LCD backlights turns off, and the hard disk drive motor spins down. The notebook returns to Full Power mode when you either press a key or move touch pen.

**Supervisor**

A user who enters the Supervisor password to access the notebook when it is started up. The person assigned this security level can access all notebook functions including the BIOS Setup menu.

**Suspend mode**

One of the notebook's power management functions. When the notebook transits to Suspend mode, power is turned off to the CPU, LCD panel, hard disk drive, and floppy disk drives. The notebook returns to Full Power mode when you either press the Suspend button or **Fn+F4**.

**System clock**

The clock built into the notebook.

**TFT**

Thin Film Transistor. A display technology used for the liquid crystal display.

**USB**

Universal Serial Bus. A high speed bus for serial devices.

**User**

A person who enters the User password to access the notebook when it is started. The person assigned to this security level cannot access the BIOS Setup menu.