# Meridian 850

The

ROADSIDE

PORTABLE

**GUIDE TO** 

MOBILE

COMPUTING

WITH YOUR

**MERIDIAN 850** 

NOTEBOOK

# User's Guide

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## For US and Canadian Users

#### <u>Warning!</u>

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15, Subpart B of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a different circuit.
- Consult the dealer or an experienced radio/TV technician for help.

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment.

This equipment is a Class B digital apparatus which complies with the Radio Interference Regulations, C.R.C., c. 1374.

Cet appareil numèrique de la classe B est conformè au Règlement sur le brouillage radioèlèctrique, C.R.C., ch. 1374.



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## Welcome!

Welcome to the Meridian 850 *User's Guide*! This guide is designed to help you get the most out of your system and keep it running trouble free, year after year.

The User's Guide is divided into seven chapters.

Chapter 1, Unpacking Your System, explains how to safely open and set up your new system.

**Chapter 2, The Big Picture**, gives an overview of a typical system including information about buttons, connectors and LED indicators.

**Chapter 3, Battery and Power management**, gives information about using your system for the first time and instructions for charging the battery pack and connecting the AC adapter.

Chapter 4, How to Use Your Meridian 850, shows how to turn on the system and begin working.

**Chapter 5, Using SETUP**, explains how to use the built-in SETUP features to configure your system.

**Chapter 6, How to Install Options**, shows how to add system RAM, PCMCIA cards, or an external floppy drive.

Chapter 7, How to Maintain Your System, explains how to care for your hardware.



System Specifications lists technical details about your system.

The **Handy Cheat Sheet** gives a short summary of some of the most needed or most forgotten commands.

The Glossary gives definitions of common computer terms.

# **1. Unpacking Your System**

Obviously, the first step towards using your new Meridian is getting it safely to your door and unpacked.

## **Do I Have Everything?**

The packing slip is one of the last items sealed into your computer box. It lists everything we shipped you. As you unpack the box, check the contents against the packing slip. If an item is listed on your packing slip, but isn't in the box, it may be installed in your system, or shipped inside one of the manuals or accessory bags. If you're sure something is missing, call Customer Service right away. The Customer Service phone number is listed on an insert to this book. Chapter 1 - Unpacking Your System

## What's in the Box?



Your box contains the packing slip, this manual, a plastic bag full of cables and other manuals, a battery pack and AC adapter, and your Windows & DOS manual.

This book shows you how to set up your system and keep it running. Your *Windows for Workgroups* and/or your *MS-DOS User's Guide* has introductory chapters to help you install and configure DOS and Windows. Since we have already loaded and tested DOS and Windows on your hard drive, you can probably skip those parts for now. Those manuals will be useful if you need to reinstall DOS or Windows onto your computer. For now, this book should get you up and running.

## Let Your Computer Acclimate Itself

Although your computer system can easily stand temperature extremes, it doesn't much like rapid changes in temperature, especially going from a cold front stoop to a warm and comfy office, or from a steamy jungle mail drop to an air-conditioned villa. Rapid changes in temperature can cause condensation inside your case. If it is hot or cold outside when you receive your system, let the computer gradually adjust to room temperature before you plug it in.

When you first receive your computer you will certainly be eager to get it going and start putting it to work, but be patient. Take the time to let it grow accustomed to its new environment.



## Keep the Box

It's a good idea to keep your Meridian's box and packing materials. That way, if you ever have to store the system or return it, your components will be well-protected.

## Where to Work

Your Meridian 850 is a tough, rugged machine. Generally it will be comfortable and run well wherever you are comfortable. Extremes of heat, cold, and humidity can be challenging to your system's parts, but usually if you can take it, so can the computer. There are, however, some things you take very easily that the computer does not like at all. Static electricity is one. Dust, water, steam, and oil are others. Wherever you decide to pull over for roadside computing, choose a clean, comfortable work area for your system.

Note: It's best to place your Meridian near a wall socket for easier access.

## Beware Heat, Cold, Humidity, and Glare

Pick a spot for your computer that's not too - not too hot and not too cold, not too dark and not too bright - glare can make it hard to read the screen. Overheating can destroy computer components. Allow plenty of room for air to circulate around the case.



Also, be sure to use grounded electrical outlets. Although your computer has its own electrical filters, fuses, and protections, and even its own built-in surge suppressor, we strongly recommend using an external surge suppressor to ensure your system is safe. An external surge suppressor looks like an extension cord with several grounded outlets. High quality surge protectors shield your computer from lightning strikes, surges, shorts, and other electrical hazards.

# 2. The Big Picture

Your Meridian 850 is designed to give you the speed and power of a desktop system in a lightweight, portable package.

## **System Features**

Every Meridian 850 includes:

- Intel Pentium microprocessor running at 75 or 90MHz
- 256K external (L2) system cache
- RAM expandable to 32MB
- 8 or 16MB standard; two memory slots fit 4, 8, or 16MB modules
- IDE hard drives: 528MB to 1.3GB
- PCMCIA slot fits two Type II cards or one Type III card
- High-speed local bus video with 1MB video RAM
- 800 X 600 10.3" diagonal dual-scan color display or 600 X 400 9.4" active matrix color display
- 84-key keyboard with embedded numeric keypad and 12 dedicated function keys, inverted "T"
- Eraser-shaped integrated TruePoint<sup>™</sup> pointing device
- Replaceable, rechargeable NiMH battery
- Ports: Serial, Parallel supports Enhanced Parallel (EPP) and Extended Capabilities (ECP), external VGA video, external keyboard, PS/2 mouse, Mic-In, stereo Speaker-Out
- Audio: 16-bit stereo output, MIDI playback, Sound Blaster Pro and Microsoft Sound System compatible
- EPA Energy Star compliant (APM Power Management)
- Flash BIOS upgradable by diskette
- AC-DC adapter
- Windows NT 3.50 certified

## Front View Mouse Buttons

The two square buttons on top of the palm rest work just like the buttons of a conventional PC mouse. Your right thumb clicks the buttons while a finger moves the cursor with the TruePoint pointing device.

### TruePoint<sup>™</sup> Pointing Device

The TruePoint pointing device works much like a joystick. The onscreen cursor moves whichever way you tilt TruePoint's red button. The harder you push, the faster the cursor moves.

#### **Suspend/Resume Button**

The Suspend/Resume button (coffee cup symbol) sets the system to the power saving mode when you need to take a break. To use the Suspend/ Resume button you must check the Enable Power Saving option under SETUP's Power menu. See chapter 5, *Using SETUP*, for details.



Meridian 850, Front View

Chapter 2 - The Big Picture

## **Side Views**



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#### **Power Button**

To turn the system on or off, press and hold the power button for 1-2 seconds. When you turn the power on, the speaker beeps once (if sound is enabled).

The Power Button will not work when the system is in suspend mode or when the computer is being powered by battery only and the display panel is closed. See Chapter 3, Battery and Power Management.

### **Reset Switch**

#### <u>Warning!</u>

When the system is rebooted all information in random access memory (RAM) is lost.

The reset switch to the right of the floppy drive reboots the system. Insert the tip of a ball-point pen into the opening to press the switch.

## PCMCIA Card Eject Buttons

These buttons let you insert or remove PCMCIA cards in the PCMCIA slots.

Note: PCMCIA cards can be removed and replaced while the system is on

## **Back View**



Each connector at the back of the system unit is displayed below. You can configure the parallel or serial ports from the SETUP menu. See Chapter 5, *Using SETUP*, for detailed instructions.

Caution:

Whenever you connect or disconnect cables, turn off all power switches.



	Connector	Description	
© <b></b> ©	Parallel port	25-pin parallel port for printers or other devices. Configure the parallel port from the SETUP program , Ctrl + Alt + S at boot	
0	Serial port	9-pin connector for a mouse, modem, or other serial devices. Configure the serial port from the SETUP program, Ctrl + Alt + S at boot	
0	Video	15-pin connector for external VGA monitor. The system will automatically detect an external monitor at boot.	
	Mouse	6-pin mini-DIN connector used for connecting a PS/2 style mouse. Auto-detect at power up.	
	Keyboard	6-pin mini-DIN connector used for connecting a 101/102-key external keyboard. Auto-detect at power up.	
$\odot$	DC Power	Connect the AC adapter cable here.	
$\odot$	Speaker-Out	Mini-pin jack for stereo speakers	
$\bigcirc$	Mic-In	Mini-pin jack for mono microphone	

## Sound Features

Your Meridian 850 features 16-bit, Sound Blaster Pro and Microsoft Sound-compatible stereo sound. The system's signal output is designed for amplified stereo speakers with 6-80hm impedance.

This sound system works automatically with Windows, but when installing DOS games or applications that use DOS Sound Blaster your software must use the following three hardware settings: I/O Address = 220, IRQ = 5, DMA = 1.

## Indicator Lights: Where they are

Located just below your screen, the indicator lights show the status of the power, battery pack, hard disk drive, Caps Lock, Num Lock and Scroll Lock.



Indicator Lights Location

	Indicator	Appearance	Description
	Power/Suspend	Glowing Blinking	The power is turned on. The system is in suspend mode.
	<u> </u>		
	LOWBATT	Slow blinking	The battery power level is low. If enabled in SETUP, the system beeps slowly warning you to recharge or replace the battery, or plug in the AC adapter. See chapter 3, <i>Battery and</i> <i>Power Management</i> .
		Fast blinking:	Battery power is nearly gone. If enabled in SETUP, the system beeps quickly warning you to connect the AC adapter.
	CHARGE	Orange	Battery is charging.
[ +	<u>+</u>	Green	Battery is fully charged.
	HDD	Green	System is using the hard drive.
	FDD	Green	System is using the floppy disk drive.
	Caps Lock	Green	Caps Lock is enabled.
	Num Lock	Green	Num Lock is enabled
	Scroll Lock	Green	Scroll Lock is enabled

## Indicator Lights: What they mean

## Using the Keyboard



The keyboard is your primary means of giving your computer numbers and words, and telling it what to do with them. The keyboard works much like the keys on a typewriter, but computer keyboards have several specialty keys. Most of today's software packages have several standard uses for the specialty keys. For example, in most software packages, pressing the F1 key summons the online help feature.

The list on the next page explains the most important keys on the keyboard.

### What the Keys Do

General Functions

**Alternate (Alt)** - used with other keys to perform special functions defined by the application you are using. While holding down the Alt key, press the other key.

**Caps Lock** - toggles on and off making the typewriter letter keys appear in uppercase.

**Control (Ctrl)** - used with other keys to perform special functions defined by the application you are using. While holding down the Ctrl key, press the other key. **Delete (Del)** - deletes the character to the right of the insertion point.

**Enter** - tells the computer you're done typing and want it to execute your command. Some people call this the Return key. Also used as a paragraph return key when typing. **Escape (Esc)** - generally allows you to escape a function without completing it. **Function Keys (F1 through F12)** - the purpose of the function keys depends on the application you are using.

**Insert** - toggles between insert and overtype mode. In insert mode, whatever you type pushes any existing characters to the right, "downstream." In overtype mode, new characters simply overwrite existing characters, deleting them as you go.

**Pause** - typically suspends the application you are using. Not all applications use the Pause key.

**Print Screen** - typically prints out the current screen on the printer. Sometimes used with the Ctrl key. Some applications disable this function or require special drivers to work properly with this key.

**Scroll Lock** - defined by the application software you are using. Not all applications use the Scroll Lock key.

**Shift** - shifts the typewriter keys from lower to upper case or from the lower symbol to the upper symbol on the key.



#### What the Keys Do (continued)



#### Editing and Movement Keys

**Backspace** - located above the Enter key. It may be labeled as Bksp or as an arrow pointing to the left. The Backspace key moves the insertion point to the left one space, erasing the characters in its path.

**Down Arrow** - moves the insertion point down one line.

End - moves the insertion point to the end of the line or screen.

Home - moves the insertion point to the top left side of the current page or screen.

Left Arrow - moves the insertion point to the left one space.

Page Down - scrolls the screen page down to the next page.

Page Up - scrolls the screen page up to the previous page.

**Right Arrow** - moves the insertion point to the right one space.

**Tab** - moves the insertion point to the next tab setting or field. Typically, Shift+ Tab moves the insertion point back one tab setting or field.

Up Arrow - moves the insertion point up one line.

**Num Lock (Num Lk)** - toggles the numeric keypad. When the Num Lock light is on, the keys on the right side of the keyboard work like a ten-key calculator. When the Num Lock light is out, the keys move the insertion point.

#### **Special Key Combinations**

Ctrl + Alt + Del - restarts the computer. Also called a "warm boot" because it clears the memory, resets, and reboots the computer without stopping the hard drive. This will not save your current work.

Ctrl + Alt + S - Run SETUP program (from the DOS prompt or during bootup). Ctrl + Break or Ctrl + C - Break out of the current program.





#### Using the Embedded Numeric Keypad

A numeric keypad for entering numbers is embedded within the main keyboard. To use the numeric characters, press the Num Lock button. Keys with a number in the lower right corner will type numbers whenever Num Lock is enabled. To return the keys to normal letters, press Num Lock again.

If you install an external keyboard or keypad, the keypad function is disabled.

## **Special Key Combinations**

The following key combinations let you perform special functions without exiting your application

Note: Some applications may conflict with certain special key combinations. If you press key combination without results, exit the application and try again.

*Fn + F10	Decreases LCD display contrast
*Fn + F11	Increases LCD display contrast
Fn + F12	Sets beep volume
Fn + F1	Toggles display output: Once=Meridian's LCD only Twice=External monitor only Three times=Both displays at once

\*Dual Scan color displays only.

#### **Setting the Speaker Volume**

Pushing FN + F12 cycles through the four volume levels for the internal speaker. When you set the volume level, the system records and remembers the level you set for the Power On beep, the Suspend Mode beep, and the normal system beep. This setting is retained in memory even when you turn the system off. To lower the volume of the low battery alert, cycle through the volume settings by pressing Fn + F12.

Caution:

If you disable sound or set the Meridian 850's volume too low, you may not be able to hear the low-battery warning.

Note: Some settings such as BIOS errors and unknown system problems will always beep at maximum volume.

## **Disk Drives**

Your system comes with a 528MB (or larger), low power consumption removable hard disk drive, and a 3.5-inch floppy disk drive. Upgrades are available.

#### Caution:

- Do not touch the connector of hard disk drive pack
- Protect the disk drive from jarring or strong vibrations
- Only remove the disk drive when absolutely necessary
- Regularly back up your data on floppy disks or others
- Discharge static electricity from the disk drive
- Use an approved Electrostatic Discharge casing (ESD bag) when storing your hard drive outside of the notebook

## Removable Hard Disk Drive

To remove the hard disk drive:

1. Turn the computer off and locate your removable hard disk drive as illustrated in the following illustration.

more steps next page

Chapter 2 - The Big Picture

continued from last page



Removable Hard Disk Drive

#### **Removable Hard Disk Drive Location**

2. Remove the retaining screw with a Phillips screwdriver. This frees the drive.



3. Turn the computer over, then place your fingers in the groove on the disk drive and pull the drive out of the socket.



## **PCMCIA Card Slot**



Note: the bottom slot is socket 0 (zero).

Your system comes with a versatile card slot which can hold one Type-III or two Type-II expansion cards (stacked).

The slot is on the left side of the computer. To insert a PC card, align the card so the label is up and the connector is toward the computer. Carefully slide the card into the slot.

To remove a card, push the PC Card Eject Button.

Your system comes with card and socket services that allow most PC cards be recognized. Some third-party cards may require their own client software.

Push the card into the slot until it is completely seated.

# 3. Battery and Power Management

## Installing the Battery for the First Time

Your system operates on a rechargeable Nickel Metal Hydride (NiMH) battery pack. To prevent possible damage during shipment the battery pack has not been installed in your system. Before turning on the system for the first time, remove the battery pack from its package and install it. Once the battery is installed, allow it to fully charge before using your system without the AC adapter.

When the battery is fully charged, the CHARGE indicator light (See Chapter 2, *The Big Picture: Indicator Lights*) will glow green. If the battery is not fully charged, the light will be orange.



#### Installing the Battery Pack

To install the battery pack:

- 1. Insert the battery pack into the battery compartment.
- 2. Push the battery into the compartment until you hear a click.

Chapter 3 - Battery and Power Management

#### **Removing the Battery Pack**



To remove the battery pack:

- 1. Locate the battery pack and battery pack release locks.
- 2. Slide the battery pack release locks. Releasing the battery pack locks. The battery pack will pop up slightly.
- 3. Pull the battery pack out of the compartment.

## **Turning On Your System**

After installing the battery pack, allow it to charge fully before using your system for the first time. Once the battery is fully charged, go ahead and open your system and push the power button. Hold the button down for one second to turn on the system.

Note: Be sure to wait at least one to two seconds between each time you press the power button. Otherwise, the button may not respond.

## **Battery Endurance Tips**

How long can you run on a single charge? This varies greatly with how you use your system and how you configure its power-conserving features. Your Meridian can run a lot longer if you do one or more of the following:

- Use the AC adapter whenever possible
- Operate in cooler temperatures
- Store the battery in low humidity also, in SETUP:
- Uncheck "LCD Max Brightness"
- Uncheck "L1 Cache Enable"
- Uncheck "L2 Cache Enable"

See Chapter 5, *Using SETUP*, to learn how to set the power management features.

## Low Battery Conditions

Two warnings alert you when your system's battery is low and needs charging. The first warning is the orange battery indicator light blinking slowly. The system speaker will also beep (if system sound is enabled). The first warning gives you about five minutes to quit working, save your data, or connect the AC adapter to the system. After that, your data could be lost.

At the second warning the orange battery indicator light blinks rapidly and the system speaker beeps again (if system sound is enabled). After the second warning, the system could shut down at any moment, erasing all your unsaved work.

#### Warning!

Systems containing more than the base amount of system memory might have a slightly shorter initial low-battery warning.

Note: If your low battery warning volumes are set to OFF, the system speaker <u>will not</u> <u>beep</u> to alert you to a low battery problem.

If you receive a low battery warning, you should immediately do the following:

If your AC adapter and a power outlet are available:

- 1. Set in suspend mode by pushing the suspend/resume button.
- 2. Connect the AC adapter to the system.
- 3. Resume the system from suspend mode by pushing the suspend/ resume button.

more steps next page
Low Battery Conditions (continued)

If an extra fully charged battery is available:

- 1. Save all necessary files.
- 2. Exit the application.
- 3. Turn off the system.
- 4. Remove the battery pack and replace it with a fully charged battery pack.

If no AC adapter, power outlet or extra charged battery is available:

- 1. Save all necessary files.
- 2. Exit the application.
- 3. Turn off the system.

# **Charging the Battery**

To charge the battery, plug the AC adapter into the system and an electrical outlet. The AC adapter converts alternating current (AC) into direct current (DC). When the power switch is turned on, the AC adapter supplies power to the system and recharges the battery pack *only when the system in suspend mode*. Otherwise, to recharge you must turn off the computer.

Recharging takes about 80 minutes for an empty battery pack when the computer is off or in suspend mode. The battery will not recharge while the computer is being used.

While the battery is charging, the CHARGE LED is orange. Once the battery is fully charged, the CHARGE LED turns green.

## Pre-charging a Dead Battery

If the battery has been completely discharged or placed in prolonged storage, it may need a pre-charge in addition to a normal charge. A precharge can take as little as a few seconds or as much as an hour in some extreme cases. While the battery pre-charges, the CHARGE LED will slowly flash orange.

### **Battery Temperature Sensor**

The AC adapter will not charge a battery when it is too hot or too cold. If the battery is outside normal operating temperature, the adapter will wait for the battery to warm up or cool down before it begins charging. While the system unit waits for the battery to return to normal operating temperature, the CHARGE LED will slowly flash green.

## **Faulty Battery Indicator**

The orange CHARGE LED may flash when a faulty battery pack is installed. If the CHARGE LED flashes orange rapidly, remove the faulty battery pack <u>immediately</u>.

#### Warning!

Powering the system with the AC adapter and a faulty battery pack installed can damage the AC adapter.

## Don't Unplug the AC Adapter with the Power On

Never <u>unplug</u> the AC adapter when the system is turned on. This may cause your computer to behave unpredictably.

However, you don't need to turn off the computer before <u>connecting</u> the AC adapter, if the adapter is plugged into an outlet.

## **Power Management**

Your Meridian 850 can operate in four different power modes, depending on how you'd like to use your computer. The four power modes--Normal, Power Saving, Battery Only, and Suspend--allow you to get the most performance under a variety of conditions (See Chapter 5, *Using SETUP* for more details).

In addition, you can select Low, Medium, High, or Custom Power Savings to specify Timeouts for your CPU, video, hard disk drive, and Global system components. Custom includes a Monitor Video Activity feature that resets the Timeout clock whenever something moves onscreen, like a mouse pointer.

Last, Meridian's *Suspend Controls* let you tell Meridian to enter Global Suspend mode after a specified time, or upon a Low Battery warning, and to resume operation at an appointed time or in response to a modem ring.

## Normal Mode

Lets you operate at top speed without any interruptions. You enable Normal mode by unchecking *Enable Power Saving* under SETUP's Power menu. This setting is appropriate if you work non-stop on your machine while it is plugged into the AC adapter. Important: Normal mode shortens the how long your battery will last when you disconnect from AC power.

## Power Saving Mode

Saves power when Meridian uses either the AC adapter or the battery. You enable Power Saving mode by checking *Enable Power Saving* under SETUP's Power menu. This setting is appropriate if you like to leave your system running constantly, but you use it only periodically.

## **Battery Only Mode**

Lets you run without interruptions while connected to the AC adapter, but conserves power when running on the battery. You enable Battery Only mode by checking *Battery Only* under SETUP's Power menu. This setting works best for heavy home use combined with mobile computing.

## Suspend Mode

Deactivates one or more of Meridian's internal components, letting you conserve power (battery or AC). You can customize Suspend Mode to save power in several ways, letting you choose what shuts down as well as when. The Meridian 850 has four settings for Suspend Mode: CPU, Video, Disk, and Global. Your system can deactivate any one of these areas when it senses no activity there, or have all of them power down ("Global") when no activity is detected an any one of the main system components.

#### **CPU Timeout**

The system runs at full speed, but the Pentium CPU slows down after sensing no CPU activity for the specified number of seconds.

#### Video Timeout

Video shuts down after a specified number of minutes without video activity.

#### **Disk Timeout**

The hard disk spins down after a specified number of minutes without any hard disk accesses within that period.

#### **Global Timeout**

Turns off all devices except memory (Global Suspend) if no activity is sensed for the specified number of minutes.

#### **Monitor Video Activity**

Prevents power saving modes from engaging while there is any video activity, including screen savers.

#### <u>Warning!</u>

While in Suspend Mode, the system still draws a small amount of power. If you leave your system in Suspend mode for a long time, the battery will eventually run down.

In Suspend Mode, system clock speed is lowered to 0 MHz and the green power/suspend light blinks continuously. Push and hold the suspend/ resume button for about one second to enter or cancel suspend mode.

## **Power Savings Settings**

These four options let you tailor the Timeouts for your system components. *Low Power Savings* gives you maximum performance but shortest battery life; *Medium Power Saveings* gives you moderate performance and moderate battery life; *High Power Savings* gives you minimum performance but longest battery life, and *Custom Power Settings* lets you manually specify Timeouts for your CPU, video, hard disk drive, and Global system components. *Custom Power Settings* also includes a *Monitor Video Activity* feature that resets the Timeout timer whenever something moves onscreen, like a mouse pointer.

## **Suspend Controls**

These allow you to set automatic Suspend and automatic Resume commands.

- *Suspend Timeout* specifies a Global Suspend mode (all components turned off except memory) after a specific time.
- *Low Battery Suspend* tells Meridian to automatically enter Global Suspend after a Low Battery warning.
- *Modem Ring Resume* awakens your system after a modem ring is detected.
- Set Resume Alarm awakens your system at the time of day you designate.

## **Battery Precautions**

- 1. Do not expose the battery to fire, which can cause explosion, or allow it to become dented or deformed.
- 2. Do not run your system on battery power for a long time at temperatures over 95 degrees F (35C). Also, do not store the battery at high temperatures. This can significantly reduce battery life.
- 3. Temperature extremes can greatly affect the life of the battery. It should be kept in a low-humidity area and temperature range of between 14 and 104 F (-10 and 40 C) when being stored for less than one month and between 14 and 86 F (-10 and 30 C) when being stored for over one month.
- 4. The battery may be damaged if it is used in any device other than your computer. Also, do not attempt to use your computer with any other make of AC adapter or battery charger. This includes the Meridian 400 AC adapter.
- 5. Do not force the battery into the system unit. Do not drop it.
- 6. Do not short-circuit the battery electrodes.
- 7. Do not be alarmed if the battery feels warm to the touch when installed in your system. This is normal.
- 8. If the CHARGE LED on the computer blinks green while charging, remove the battery pack and allow it to return to normal operation temperature before recharging.
- 9. After recharging, if the battery power quickly becomes weak, or if the CHARGE LED on the computer blinks orange rapidly during recharging, the battery power pack's service life has probably come to an end. Promptly replace it with a new battery pack, or remove the battery pack and use AC adapter for power source. Do not leave a dead battery pack in the computer.
- 10.Do not to open the pack. It contains harmful materials that can catch fire when exposed to the air or chemically burn your skin. Dispose of batteries according to local regulations.
- 11. The battery may not charge if its contacts become dirty. You can clean the contacts with a cloth.

## **AC Adapter Precautions**

- 1. It is extremely dangerous to use the AC adapter when it is wet. If it should become wet or damaged, immediately unplug the adapter from the power outlet and the computer.
- 2. Do not subject the adapter to strong vibration or shocks. Be careful not to drop it.
- 3. Do not expose the adapter to direct sunlight for prolonged periods.
- 4. Do not use or store the adapter near chemicals or around corrosive gases.
- 5. Do not use or store the adapter in places subject to extreme temperatures or near a heat-producing source. Avoid using it in extreme humidity or dusty conditions.
- 6. Do not unplug the AC power cord or DC connector by pulling on the cord. Instead, grasp the plug firmly and pull it out. Also, do not hold the adapter by its AC cord or DC input connector.
- 7. After unplugging the DC input connector from the computer or AC power cord from the adapter, wait at least 5 seconds before attempting to reconnect it.
- 8. Do not attempt to open the adapter, which has no user-serviceable parts. Opening it can result in electrical shock or adapter malfunction.
- 9. When the adapter is not being used, unplug its AC power cord. While attached to a wall outlet, the adapter continues to supply DC voltage to the plug connector even when it is unplugged from the computer. If the loose plug comes into contact with metal, a short circuit could occur, causing damage to the adapter.
- 10. Do not use the adapter with any other devices other than this computer. This includes the Meridian 400. Also, do not attach any other make of AC adapter other than the one supplied with the computer. Even momentarily attempting to use a different adapter can cause serious or fatal damage to your computer.
- 11. To ensure proper ventilation and heat dissipation, keep the AC adapter positioned with its top upward. Also, do not cover the adapter during use with cloth, paper or other materials that can interfere with heat release, or it may become damaged.

# **4. Using Your Meridian 850** Opening the Lid

To open the display, pull the latches at the both sides of the system backward and lift the display carefully, as illustrated.



Interior Features (Front view)

### **Examining the Interior Features**

The suspend/resume button, LED indicator lights, embedded pointing device and mouse buttons are illustrated in the above picture.

# **TruePoint™ Pointing Device**

The red button, called the TruePoint<sup>TM</sup> embedded pointing device, works like a joystick. Simply put a finger on it and tilt it the direction you want the cursor on the screen to go. The harder you tilt, the faster it moves.

When you need to click on something, use the rectangular mouse buttons (on top of the wrist rest) exactly as you would use the two buttons on a mouse.

# **PS/2 Style Mouse**

Before you can use an external mouse, you must first install its device driver. This software enables your mouse to communicate with the system. See your mouse documentation for instructions how to install the mouse and mouse driver.

Your system automatically switches to a PS/2 mouse if one is connected to the PS/2 Mouse port. You cannot use both the embedded pointing device and the external mouse at the same time.

Note: A PS/2 style mouse may not work correctly if you connect it after bootup. Always turn the power off before connecting a PS/2 style mouse.

# **Serial Mouse**

Before you can use any external mouse, you must first install its device driver. This software enables your mouse to communicate with the system. See your mouse documentation to learn how to install the mouse and mouse driver.

To use a serial mouse, run the SETUP program (Ctrl+Alt+S system startup). In SETUP, pull down the Components menu, then clear the checkbox next to *Internal Mouse*. The next time you boot up, you can use a serial mouse.

After the TruePoint device is disabled, connect a serial mouse to the serial port at the back of the system unit. Do not try to connect a PS/2 style mouse to the serial port. The mouse will use the COM1 serial port.

# **External Video Monitor**

If you attach an external monitor to your Meridian, the computer will detect it on power up, initially sending send its video signal to the external monitor only. However, if you connect an external monitor during use, the LCD screen initially will remain on. You can toggle screen modes by pressing the F1 key while holding down the Fn key (Fn + F1). Available modes are: External only, LCD only, and Simultaneous LCD and External.

#### **External Video Capabilities**

The Meridian 850 supports the following external video resolutions and color depths:

Resolution	Colors	
640 x 480	256, 32K, 64K	
800 x 600	256	
1024 x 768	256	

#### Tips on using Meridian's LCD display

- 1. To power up with the LCD panel closed, you must have the AC adapter connected. On battery power alone: open the panel, turn on power, then close the panel.
- 2. If you use the Meridian with the LCD panel closed, we recommend that you run the system with the AC adapter plugged in.

## **External Keyboard**

Connect a normal 101-key keyboard with a suitable adapter, then turn on power. The external keyboard will operate simultaneously with Meridian's onboard keyboard, but the external one will lack an Fn key.

# Floppy Disks

Floppy disks are used to:

- transfer information from one computer to another
- install software on your system's hard drive
- make backup copies of your software and data

When you insert a floppy disk into the system's floppy disk drive, you can read the information stored on the disk and write information to the disk.

Your Meridian 850 comes with a 3.5-inch 1.44MB internal floppy drive. You can use either high-density (1.44MB storage capacity) or doublesided/double-density (720KB storage capacity) floppy disks in this drive.

You can tell the disks apart by looking at the edge of the disk opposite the sliding metal panel.

- 1.44MB disks have a write-protected tab on one side and a sensing hole on the other side
- 720KB disks have only a write-protect tab

To write-protect either kind of disk, slide the plastic write-protect tab towards the edge, uncovering the hole.

As you push the disk into the drive you will hear a faint click as the disk slides into place. To release the disk, push the button on the upper right side of the disk opening.

## **Care and Handling**



#### 3.5" 1.44MB High Density Floppy Disk

A few things to remember when handling floppy disks:

- Handle disks carefully.
- Don't remove a disk from a drive while its platter is spinning.
- Don't touch or scratch any exposed portion of the disk's shiny surface, or allow dust or moisture to collect on the disk.
- Store disks at a temperature range between 50-120 degrees F (10-49C).
- Keep disks away from magnetic fields.
- Format a new disk before you use it for storing data. Before you begin the format, make sure the disk doesn't contain anything you want to save. Formatting a disk will erase all data stored on it.

## **Dual PCMCIA Card Slot**

#### Caution:

Don't install another vendor's card and socket services over the preinstalled SystemSoft services. Your Card & Socket Services will accomodate SRAM cards, a modem on COM2, and ATA Type III hard drives.



PC Card Ins and Outs

Your system comes with a versatile expansion slot, located on the left side of your computer. It can accommodate up to two PCMCIA Type I or Type-II cards, stacked one atop the other, or else a single Type III card. To insert a PCMCIA card, align the card label-up, with the connector toward the computer. Carefully slide the card into the slot. To remove a card, push the card's eject button. Your system comes with software that allows most PCMCIA cards to be recognized; however, some third-party cards may require their own software.

Note: Your system is installed and configured with SystemSoft Card and Socket services. Please view the Meridian README icon in Windows or the README file in the \UTILS directory for further information. Type II PCMCIA cards can provide your computer with:

- Flash Memory
- LAN
- Fax/Modem
- External Cache Memory
- SCSI
- Sound system

#### Type III PCMCIA cards can provide your computer with:

• ATA Hard Drives

Note: Before you can use certain PCMCIA cards, you will need to install a client driver first. See your card's user manual for more details.

# 5. Using SETUP

Your computer has a SETUP utility program that allows you to observe or change the following system settings:

System time and date Floppy disk drive type Hard disk drive type Video display Selection Fast Boot Mode Color Scheme Sound Chip Number lock on or off Boot Device Cache Serial and parallel port status Internal Mouse LCD Brightness System Password Power saving features

Note: SETUP configuration information resides in the battery-powered CMOS RAM. The battery usually lasts for about five years. If the battery is low, you may repeatedly get a SETUP error during system startup. If this occurs, call Customer Service immediately. Do not open the system case yourself.

# **Running SETUP**

					Jan 15, 1995	3:23:32 pm
Startup Memory	Disks	Components	Power	Exit		
Hard Drive C Serial Port 1	= = =	1.44 Mb 528 MB COM 1, 3F8, LPT1, Addr 37			Extended = 7 Shadow = Reserved =	bled
,	, and <	Enter> keys a		,	s to navigate. Mou tem. Mouse right b	
<esc> key cance</esc>	el curre	ent action.				

#### Important:

Before entering SETUP, save your files and exit any applications you are running. Once you enter SETUP, you will lose all unsaved data because the system reboots when you exit SETUP.

To run SETUP, press Ctrl+Alt+S either while the system is booting up or at the DOS prompt.

The SETUP main screen has five menus: Startup, Memory, Disks, Components, Power, and Exit. You should see a screen similar to the one above.

Note: SETUP's bottom panel provides short summaries of the menus and options currently selected, as well as the keys used for moving and changing values.

## Startup



Both your mouse and your keyboard can operate the SETUP program.

With your mouse (TruePoint or external) you move the pointer to the desired menu, then single-click on the left mouse button to drop the menu down. Single-click on the options presented to see the present values or make changes. The right mouse button will let you cancel selections.

With your keyboard, the <Alt> key highlights a menu, then your keyboard's <Left Arrow> and <Right Arrow> keys change menus. <Up Arrow> and <Down Arrow> keys select each menu's options, and the <Enter> key or <Spacebar> activates choices.

Note: SETUP's bottom panel provides short summaries of the menus and options currently selected, as well as the keys used for moving and changing values.

## Date and Time

Provides a single window for setting the system date and time. The Date and Time window lets you specify the date, month, and year as well as the Hour, Minute, and Second.

## Fast Boot

Initializes and quickly boots the system in a few seconds by bypassing certain diagnostic tests. To fully test the system at power-on time, turn off Fast Boot. This makes the system perform a more comprehensive test of the hardware, which makes the bootup process longer. A check mark indicates Fast Boot is enabled.

## **Boot Device**

Specifies where the system boots from. Available devices: Diskette A, Hard Disk C, or PCMCIA Card (PCMCIA SRAM only).

## Video Select

Selects the display type that will be used when the system boots up. Available options from the Video Select menu include: LCD Only, CRT Only, or Simulscan. LCD Only specifies that a Liquid Crystal Display (or equivalent panel) is used; CRT specifies that an external Cathode Ray Tube is used; Simulscan specifies that both an LCD and CRT will be displayed simultaneously when the system boots.

## LCD Max Brightness

Sets the LCD panel to the maximum brightness.

### Password

Creates passwords at bootup for accessing SETUP values or disabling current passwords. There are two kinds of password, the bootup password and SCU (SETUP) password. To create or change these passwords, run SETUP and select *Password* under the Startup menu. The following dialog box appears:

Password —
Enter Password :
Verify Password :
[ ] Enable password for Boot-up
[ ] Enable password for SCU changes
OK Cancel

#### **Boot Password**

Creates a password to access to the system at bootup, or disables the current password.

To create or change a password, enter 4 to 8 characters in the text box. Each character is displayed by an asterisk (\*). Using the <Tab> key, highlight *Enable password for Boot-up*. When you press the <Spacebar>, an [X] appears. Press <Enter>. Next, reenter the password to verify it, then, press <Enter>. A message appears stating that the password has been verified, then tells you to press any key to continue. After the password dialog box closes, an [X] appears next to the Boot Password menu item.

Note: If you enter the wrong verification password, you'll have to start again.

#### Removing the boot-up password

Highlight *Enable password for Bootup* and press <Spacebar>. The [X] mark goes away.

#### SCU (SETUP) Password

Lets you create or disable the current SETUP password.

To create or change the password, enter 4 to 8 characters in the text box. Characters will be shown as asterisks '\*'. With the <Tab> key, highlight *Enable password for SCU changes*. When the spacebar is pressed, [X] appears. Press <Enter> when finished.

When prompted to reenter the password to verify it, do so and press <Enter>. A message appears stating that the password has been verified, then tells you to press any key to continue. After the password dialog box closes, an [X] appears next to the *SCU changes* option.

Note: If you enter the wrong verification password, you'll have to start again.

#### To Remove the SCU changes password

To disable the password, press the *<*Spacebar> at *Enable password for SCU changes*. When the [X] checkbox is cleared, the password is disabled.

## Configure SCU (SETUP) Color Scheme

Changes the SETUP color scheme.

Options: Default Colors, Alternate Colors, Monochrome, and Inverse Mono.

## **Easy Menus or Complete Menus**

Displays all available menu options (Complete Menus) or only the most commonly used ones (Easy Menus).

# Memory

						Jan 15, 1995 3:23:32 pm
Startup	Memory	Disks	Components	Power	Exit	
	F L1 Ca Five C Port 1 Port Battery Cha	ache Wri ache Ena = = arge	teback ble 528 MB COM 1, 3F8, IF LPT1, Addr 378			- Power Management Maximizer : Enabled Low Power Savings Memory Base = 640 KB Extended = 7168 KB Shadow = 96 KB Reserved = 288 KB Total RAM = 8192 KB Cache (Ext) = 256 KB
Enable i	nternal Pe	entium	cache for faste	r perforn	nance	9

## L1 Cache Enable

Enables or disables the Pentium processor's internal cache. When enabled, system performance increases.

## L1 Cache Writeback

Sets cache to either writeback mode (faster) or write-through mode.

## L2 Cache Enable

Enables or disables the onboard external L2 cache. The computer is typically faster with L2 cache enabled.

## Disks

						Jan 15, 1995	3:23:32 pm
Startup	Memory	Disks	Components	Power	Exit		
Floppy Hard D Serial F Paralle	z Pentiun Drive A Prive C Port 1	<pre>√ Fas Har √ Fas = = =</pre>	<b>Kette Drive</b> t Diskette d Disk t Hard Disk 528 MB COM 1, 3F8, II LPT1, Addr 378			Extended = 7 Shadow = Reserved = Total RAM = 8	led js 640 KB 168 KB 96 KB 288 KB
Configu	re diskett	e (flop	py) drives A				

## **Diskette Drive**

Configures the diskette drive. Settings: 1.44MB or Disabled.

#### Fast Diskette

Reduces ISA bus wait states, making the diskette drive quicker.



#### Hard Disk

Configures the Hard Disk Drive 1 (DOS drive C:). Options:

- [Disabled] If no hard drive is installed.
- [Standard] To select a drive type from a standard list of drives. (44 pre-defined drive types are listed).
- [Custom] To configure a drive not in the standard list. When selected, you must manually enter the values for cylinders, heads, sectors per track (SPT), landing zone (LZone), and write precompensation (Precomp) for the drive to be recognized.
- [Auto-ID] Attempts to configure the hard drive parameters for any supported IDE drive.

## Fast Hard Disk

Enables or disables the turbo IDE interface. When enabled, your system can access the hard disk much more quickly.

# Components

	Jan 15, 1995 3:23:32 pm
Startup Memory Disks Components Power Ex	xit
System       COM Ports         75 MHz Pentium       LPT Port         Floppy Drive A       =       1         Hard Drive C       =       52         Serial Port 1       =       C(         Parallel Port       =       LF         Battery Charge       Internal Mouse         Configure serial (COM) port I/O addresses	Power Management Maximizer : Enabled Low Power Savings Memory Base = 640 KB Extended = 7168 KB Shadow = 96 KB Reserved = 288 KB Total RAM = 8192 KB Cache (Ext) = 256 KB

## **COM Ports**

Configures the I/O address for the serial (COM) port. Available settings: COM1 (3F8), COM2 (2F8), COM3 (3E8), COM4 (2E8), or Disable.

## LPT Port

Designates the port and the IRQ assignment for the LPT (printer) port. Available I/O addresses: LPT1 (378h), LPT2 (278h), or Disabled.

Note: When you enable an LPT Port, it will use IRQ 7.

## LPT Type

Specifies the type of LPT port. Selections include: Standard AT (Centronics), Bidirectional (PS/2), Enhanced Parallel (EPP), and Extended Capabilities (ECP).

### Keyboard Numlock

Specifies whether Num Lock is on or off at system bootup. Options: Enabled or disabled.

### Keyboard Repeat

Determines how fast a character repeats when a key is held down. Also specifies the amount of time that will pass after a key is depressed before repeating begins.

Options: 2, 6, 10, 15, 20, and 30 cps. Key delay selections: 1/4, 1/2, 3/4, and 1 sec.

#### Internal Mouse

Enables or disables the internal (TruePoint) pointing device. When disabled, the external mouse port is activated.

## Left-Handed Mouse

Switches the functions of the left and right mouse buttons.

Note: If you switch mouse buttons, you'll have to use the opposite buttons to return to normal.

## Sound Chip

Enables or disables the onboard sound chip. Disable this chip if you use an external sound card.

Note: This sound system works automatically with Windows, but when installing DOS games or applications that use DOS Sound Blaster your software must use the following three hardware settings: I/O Address = 220, IRQ = 5, DMA = 1.

## Power

## Enable Power Saving

Enables or disables selected power-saving features. When enabled, your specific set of features are activated. When disabled, all power-saving features are deactivated.

#### **Battery Only**

Enables power savings only while running on the battery. When disabled, power saving strategies will operate even while using AC power.

### Low Power Saving

Sets power-savings to their lowest level. Result: maximum system performance, shortest battery life.

### **Medium Power Saving**

Sets power-savings to a medium level. Result: moderate system performance and moderate battery life.

## High Power Saving

Sets power-savings to its highest level. Result: minimum system performance, longest battery life.

### **Custom Power Saving**

Lets you choose the Timeout interval for the CPU, Video, Disk, and Global (all components turned off except memory). You can also have the system monitor Video Activity. Custom settings override any presets.

Item	Available Settings
CPU Timeout	Disabled, 4, 8, 16 seconds
Video Timeout	Disabled, 1, 2, 4, 6, 8, 12, 16 minutes
Disk Timeout	Disabled, 1, 2, 4, 6, 8, 12, 16 minutes
Global Timeout	Disabled, 1, 2, 4, 6, 8, 12, 16 minutes
*Monitor Video Activity	Disabled or Enabled

Custom Power Saving Settings include:

## **Suspend Controls**

- These determine when the system enters or awakens from Suspend Mode. <u>Suspend Timeout</u>: how long the system must be idle before it enters Suspend Mode (settings: Disabled, 5, 10, 15, 20, 30, 40, 60 minutes).
  - **Low Battery Suspend**: suspends the system when it detects a low battery condition.
  - Modem Ring Resume: awakens the system after a modem ring is detected. This allows your system to wait for a call in Suspend Mode.
  - Set Resume Alarm: sets an alarm that awakens your system at a specified time of day.

# Exit

	Jan 15, 1995 3:23:32 pm
Startup Memory Disks Components Power	Exit
System 75 MHz Pentium Floppy Drive A = 1.44 Mb Hard Drive C = 528 MB Serial Port 1 = COM 1, 3F8, IRQ 4 Parallel Port = LPT1, Addr 378 Battery Charge	Save and Exit       ent         Save and Reboot       abled         Exit (No Save)       abled         Default Settings       ngs         Version Info       ent         Base       =         Extended       =         Shadow       =       96 KB         Shadow       =       96 KB
	Reserved = 288 KB Total RAM = 8192 KB Cache (Ext) = 256 KB
Save current settings and return to previous	s work

### Save and Exit

Saves the current SETUP values and exits the program. The new settings will not take effect until after the system is rebooted.

#### Save and Reboot

Saves the new values and reboots the system so they can take effect.

## Exit (No Save)

Exits SETUP without saving any changes.

### **Default Settings**

Restores the default settings (the original settings in ROM).



### **Restore Settings**

Restores the previous set of SETUP values.

## Version Info

Displays the current BIOS version information, including version number and date.

Chapter 6 - How to Install Options

# 6. How to Install Options

Right out of the box, your Meridian helps you do your work faster and easier. And as your needs change, it's easy to add new components to improve the performance, power, and flexibility of your system.

This section explains how to install some of the most popular computer accessories. Usually, upgrading your system is as easy as opening the case and sliding in a new feature.

#### Caution:

Whenever you work inside the computer, electrostatic discharge can permanently damage your equipment. Always ground yourself by touching the metal portion of the rear panel before beginning these procedures. We strongly recommend using an antistatic wrist strap attached to the "FG Terminal" on the left side of the rear panel. See illustration in Chapter 2, Back View.

# Installing More RAM

System memory is often called RAM, for Random Access Memory. RAM is the "thinking space" available to your applications. Usually, the more system RAM you have, the faster your system will run. Many software applications simply run much faster and more efficiently when more RAM is available.

Your system comes with an 8MB RAM module installed, upgradable to 32MB. The two internal slots allow you to add memory with 4MB, 8MB, or 16MB RAM modules.

## Before You Begin...

Select a clean, well lighted work space. Place your system unit on a stable work surface large enough to accommodate the components of the system unit you remove and replace.

#### Caution:

Whenever you work inside the computer, electrostatic discharge can permanently damage your equipment. Always ground yourself by touching the metal portion of the rear panel before beginning these procedures. We strongly recommend using an antistatic wrist strap attached to the "FG Terminal" on the left side of the rear panel. See illustration in Chapter 2, Back View.

## Installing the RAM Board

The RAM board slot is located under the memory board cover, as illustrated in the figure.



Memory Board Location (cover removed)

Caution:

Whenever you work inside the computer, electrostatic discharge can permanently damage your equipment. Always ground yourself by touching the metal portion of the rear panel before beginning these procedures. We strongly recommend using an antistatic wrist strap attached to the "FG Terminal" on the left side of the rear panel. See illustration in Chapter 2, Back View.

- 1. Turn off the power and remove all connecting cables.
- 2. As you face the computer, turn the system over so the bottom of the system is facing up.
- 3. Use a screw driver to free the cover. Take the cover off and set it aside.
- 4. Hold the RAM board gently by its edges.
- 5. Insert the RAM board into the slots as shown in the figure. Press down gently.



# 7. How to Maintain Your System

Your system is designed for years of rugged, portable use. You'll get even more service out of your Meridian by taking good care of your equipment.

## **Travel Precautions**

Follow these steps to prepare the system for travel:

- 1. Back up important data onto floppy disks.
- 2. Turn off the power to the system and all peripherals.
- 3. Make sure that the display is properly closed. The latches on the side of the system must be secured.
- 4. Disconnect the AC adapter and all peripherals.
- 5. Hand carry the system. Do not check it as luggage.
- 6. Check with the airline if you plan to use the system in-flight.
- 7. When traveling in another country, check that the local AC voltage and the AC adapter power cord specifications are compatible. If not, purchase a power cord that is compatible with the local voltage. Do not use converter kits sold for appliances to power the system.

# **System Hardware Precautions**

- Do not expose the system to rain, liquid, or moisture.
- Do not clean the system with liquid or aerosol cleaners. Wipe the system with a damp, soft cloth.
- Do not place the system near sources of heat.
- Do not expose the system to extreme temperatures.
- Do not place objects on top of the system. This can damage the screen.
- Do not expose the system to direct sunlight.
- Do not subject the system to strong vibration or shocks. Be sure not to drop it.

# **AC Adapter Precautions**

- Do not connect to any other device.
- Connect the adapter power cord into a grounded power outlet only.
- Contact an electrician if the adapter power cord does not fit into your outlet.
- Do not set anything on the power cord. Carefully route the power cord and cables.

## **Battery Power Pack Precautions**

- Turn the power off before removing or replacing the battery pack.
- Do not tamper with the battery pack. Never attempt to open the case. The pack can ignite if opened. Corrosive chemicals in the battery can cause chemical burns.
- Dispose of a used battery case promptly and properly according to local regulations.

# **System Specifications**

CPU	Intel Pentium running at 75 or 90MHz			
Cache	256K external			
Memory	<ul> <li>ROM: 128KB for system/video</li> <li>RAM: 8MB or 16MB standard expandable to 32MB</li> <li>Video: 1MB</li> </ul>			
Hard drive	2.5 inch low power consumption IDE hard drive, 528MB or 1.3GB			
Display	<ul><li>10.3" inch diagonal dual-scan color with</li><li>800 X 600, 256 colors</li><li>9.4" diagonal active matrix color with</li><li>640 X 480, 256 colors</li></ul>			
Keyboard	84 keys including cursor control (arrow) keys, embedded numeric pad and 12 function keys			
Sound Ports	Speaker-Out: Mini-Din jack Mic-In: Mini-Din jack			

## **Environmental Specifications**

Operating Temperature	10°C to 35°C
Storage Temperature	-10°C to 50°C
Operating Humidity	40%RH to 80%RH (no condensation)
Storage Humidity	40% RH to 80% RH (no condensation)

## **Dimensions**

Weight	DSTN/TFT Color:		6.8 lbs. with battery
Case		. ,	) X 8.9 (d) X 1.9 (h) inch X 198 (d) X 42 (h) mm

## **Battery Pack Specifications**

Туре	6-cell rechargeable nickel-metal hydride
Voltage	7.2V DC
Capacity	2600 mAh
Ambient temperature	-10 to 40C short term -10 to 30C long term
Dimensions	10.87 (w) x 1.61 (d) x 0.81 (h) inch 276 (w) x 40.8 (d) x 20.5 (h) mm
Weight	1.03 lbs (470g)

# **AC Adapter Specifications**

Input	90 to 240V AC, 50/60Hz, 0.6A maximum
Output	11.5V DC, 2.4A
Dimensions	2.6 (w) X 5.4 (d) X 1.5 (h) inch 66 (w) X 137 (d) X 38 (h) mm
Weight	.79 lbs (360g)
DC Cable length	70.9 inch (1,800mm)

# **Handy Cheat Sheet**

Here are some of the most often needed (and forgotten) notes.

CTRL + ALT + DEL	
Reset button, or	
Power button	
CTRL + ALT + S	Access SETUP
CTRL + BREAK, or	
CTRL + C	Pause or Break an application or batch file

#### **DOS Commands**

COPY [filename] [drive:] [path] [newfilename] copies a file FORMAT [drive:] erases and formats a disk
DIR [drive:] [path] lists the files in a certain drive and directory
DEL [filename] deletes a file
MD [newdirectory] makes a new directory
RD [directoryname] removes and erases an empty, old directory
RENAME [oldfilename] [newfilename]renames a file
CHKDSK [drive:] displays a status report for a disk
CD [path] changes to a different directory
CLS clears the screen

#### **Common DOS file extensions**

.BAK backup file	
.BAT	batch file
.COM	command program file
.EXE	executable program file
.SYS	system file
.INI	Windows initialization file
.PIF	. Windows program information file
README files	text files with special instructions

# Handy Cheat Sheet

#### Windows Shortcuts

Ctrl-C	copy to clipboard
	paste or copy from the clipboard
Ctrl-X	delete and copy to clipboard
Alt-Tab	toggle between open applications
Alt-Esc	jump to next open application

**Wildcards** - wildcards are special characters that can represent any other valid numbers, letters, or symbols in a file name.

*	The asterisk represents any number of other characters up to the DOS limit of eight. For example:	
	*.BAK would represent any file with the extension BAK.	
	GONOW.* would represent all files named GONOW with any extension.	
?	The question mark represents any <i>single</i> character. For example:	
•	GONOW.?XE would represent any file named GONOW with an extension ending in XE.	
	?ONOW.EX? would represent any five character filename ending in ONOW with EX as the first two characters of its extension.	

# Glossary

This glossary provides general definitions of key terms. For an expanded list look in standard reference books on computers.

Active Matrix - Flat screen technology that controls each pixel with an individual transistor.

**Address** (Physical) - A specific location in memory where a unit record, or sector, of data is stored.

**Application Program** - Computer program that actually performs a useful task. Word processors, spreadsheets, and desktop publishing programs are application programs.

**AUTOEXEC.BAT** File - An MS-DOS batch file containing commands which execute automatically when you turn on your computer.

**Batch File** - A file containing several commands that execute in sequence as a group, or batch. MS-DOS batch files must have a filename extension of .BAT.

**Boot** - Short for Bootstrap. Transfer of a disk operating system program from storage on floppy disk or hard disk drive to computer's working memory. Now refers generally to the system initialization process.

**Boot Disk** - A disk with an operating system installed which loads itself into RAM on power up.

**Character** - Anything that can print in a single space on the page or the screen. Includes numbers, letters, punctuation marks, and graphic symbols.

**Command Processor** - The part of an operating system that processes commands entered by you. The command processor in MS-DOS is contained in the COMMAND.COM file.

**CPU** - Central Processing Unit. The piece of hardware which interprets instructions, performs the tasks you indicate, keeps track of stored data, and controls all input and output operations.

**Crash** - A malfunction in the computer hardware or software, usually causing loss of data.

**Cursor** - The arrow, vertical I-beam or other screen object that shows where you can click to select something onscreen. See *Insertion point*.

**Diagnostics** - Tests and procedures the computer performs to check its internal circuitry and set up its configuration.

**DIP Switches** - Small switches on a piece of hardware such as a CPU, a printer, or an option

card. DIP switch settings control various functions and provide a system with information about itself. DIP stands for Dual In-Line Package.

**Directory** - A list of the files stored on a disk or a part of a disk. Sometimes called a Folder.

**Disk Drive** - The physical device which allows the computer to read from and write to a disk. A floppy disk drive has a disk slot into which you insert floppy disks. A hard disk drive is permanently fixed inside the system unit.

**DOS** - Disk Operating System. A computer program which continuously runs and mediates between the computer user and the Application Program, and allows access to disk data by disk filenames. The Disk Operating System controls the computer's input and output functions. See Operating System.

**DSTN-** Dual Scan Twisted Nematic. By dividing the screen in two, then refreshing both sides simultaneously, this technique offers a sharper picture than conventional passive matrix screens.

**ECP** - Extended Capabilities Port. Parallel port with an asynchronous, byte-wide, bidirectional data flow. It can also distinguish between commands and data.

**EPP** - Enhanced Parallel Port. Parallel port with an asynchronous, byte-wide, bidirectional channel, plus separate address and data cycles over the eight data lines of the interface.

**File** - A group of related pieces of information called records, or entries, stored together on disk. Text files consist of words and sentences. Program files consist of codes and are used by computers to interpret and carry out instructions.

**Floppy disk** - A flat piece of flexible plastic coated with magnetic material and used to store data permanently.

**Format** - To prepare a new disk (or erase an old one) so it can receive information. Formatting a disk divides it into tracks and sectors which create addressable locations on it.

Hard Disk Drive - Sometimes called rigid disk drives, or fixed disk drives. Unlike floppy disks, hard disks are fixed in place inside the system unit. They can process data faster and store many

# Glossary

more files than floppy disks.

**IDE** - Integrated Drive Electronics. An IDE drive has the controller electronics built into the drive itself and is connected directly to the mainboard or to an adapter card.

**Insertion point** - A blinking vertical marker which shows where you can type words or numbers. Also called Text Cursor. See *Cursor*.

**Jumper** - A small electrical connector that alters some of the computer's functions. Short (makes a connection) or Non-Short (no connection).

**Kilobyte (KB)** - A unit used to measure storage space (in a computer's memory or on a disk). One kilobyte equals 1024 bytes.

**LED** - Light Emitting Diode. A diode that illuminates when electricity passes through it, like the indicator lights on the front panel of the computer.

**Local Bus** - A set of addresses, data, and control signals that interface directly with the host CPU.

Mainboard - A printed circuit board into which other circuit boards can be plugged. Usually, it contains the CPU, connectors for memory (SIMMs), secondary cache, SCSI host adapter socket and expansion slots for add-on boards. Also known as a motherboard.

**Memory** - The area where your computer stores data. Memory contents can be permanent and unalterable (ROM) or temporary (RAM).

**MHz** - This stands for Megahertz, or cycles per second.

**Operating System** - A collection of programs that allow a computer to control its operations. The Operating System determines how programs run on the computer and supervises all input and output - for example, MS-DOS.

**Parallel** - The type of interface which transmits data in groups of bits. Printers usually use Parallel ports.

**PCMCIA** - Personal Computer Memory Card International Association. A nonprofit trade association formed to standardize miniature PC expansion cards.

**Peripheral** - A device (such as, a printer or a modem) connected to a computer that depends on the computer for its operation.

**Port** - A physical input/output socket on a computer where you can connect a peripheral.

**RAM** - Random Access Memory. The part of memory that a computer can both read and write to. The programs you use are temporarily stored in RAM. All data stored in RAM is erased when you turn off the power.

**Read** - To copy data from one area to another. For example, when you open a text file stored on disk, the computer reads the data from the disk and displays it on the screen.

**Reset** - To reload a computer's operating system so you can retry a task or begin using a different operating system. Resetting clears RAM.

**ROM** - Read Only Memory. A portion of memory that can only be read and cannot be used for temporary storage. ROM retains its contents even when you turn off the power.

**Self Test** - The initial diagnostics procedures a system performs to check its hardware.

**SETUP** - This refers (usually) to the program that is used to load the CMOS data base with input from the user. SETUP sets the date, time, and configuration of disk drives installed on the system.

**Software** - The programs that enable your computer to perform the tasks and functions you indicate. Application programs are software.

**Subdirectory** - A directory that originates from another directory (the root directory or some other directory). Subdirectories branch out from other directories.

**System Disk** - A disk that contains the operating system. A Boot Disk.

**TFT** - Thin-Film Transistor. A tiny transistor that controls the brightness of a single red, green or blue dot (pixel) in an active matrix display.

Write - To store data on a disk.

**Write-Protect** - To prevent a floppy disk from being overwritten by placing a write-protect tab over the notch on the side of the floppy disk (5.25") or setting the write-protect switch (3.5"). When a floppy disk is write-protected, you cannot erase, change, or record over its contents.

ZEOS - Greek God of computers.

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## Late Changes

Following is a list of changes that arrived too late for printing.

p.2: Copyright now Micron Electronics.

p.7-8: Updated Table of Contents.

p.15: Mainboard Features now shows 75 and 90MHz for CPU; Hard disk drives now available in 1.3GB; Now Windows NT certified.

p.22: Updated instructions for setting sound system parameters for games and applications.

p.46: Added an LCD Display section.

p.48: Added a table on external video resolutions.

p.63: Udated the Note on setting sound system parameters for DOS games and applications.

p.74: System Specifications now shows 75 and 90MHz CPU support; Hard disk drives now available in 1.3GB.

p.80-1: Updated index.