



ML910™ Rugged Notebook User Guide



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Owner's Manual R00
Part Number: 6871008P31

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Section 13 ASSIGNMENT

This Agreement may not be assigned or otherwise transferred by You.

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This Warranty applies within the fifty (50) United States' the District of Columbia and Canada.

LIMITED WARRANTY

MOTOROLA COMMUNICATION PRODUCTS

If the affected product is being purchased pursuant to a written Communications System Agreement signed by Motorola, the warranty contained in that written agreement will apply. Otherwise, the following warranty applies.

I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

Motorola Inc. or if applicable, Motorola Canada Limited ("Motorola",) warrants the Motorola manufactured radio communications product ("Product"), against material defects in material and workmanship under normal use and service for a period of Three (3)Years from the date of shipment. Accessories, including batteries carry their own separate limited One (1) year warranty.

Motorola, at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it with the same or equivalent Product (using new or reconditioned Product), or refund the purchase price of the product during the warranty period provided purchaser notifies Motorola according to the terms of this warranty. Repaired or replaced Product is warranted for the balance of the original applicable warranty period. All replaced parts of the Product shall become the property of Motorola.

This express limited warranty is extended by Motorola to the original end user purchaser purchasing the Product for purposes of leasing or for commercial, industrial, or governmental use only, and is not assignable or transferable to any other party. This is the complete warranty for the Product manufactured by Motorola. Motorola assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of Motorola. Unless made in a separate written agreement between Motorola and the original end user purchaser, Motorola does not warrant the installation maintenance or service of the Product.

Motorola cannot be responsible in any way for any ancillary equipment not furnished by Motorola which is attached to or used in connection with the product, or for operation of the Product with any ancillary equipment and all such equipment is expressly excluded from this warranty. Because each system which may use the Product is unique, Motorola disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

II. GENERAL PROVISIONS:

This warranty sets forth the full extent Motorola's responsibilities regarding the product. Repair replacement or Refund of the purchase price, at Motorola's option, is the exclusive is the exclusive remedy.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES.

MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.

III. How TO GET WARRANTY SERVICE:

Purchaser must notify Motorola's representative or call Motorola's Customer Response Center at 1.800.247.2346 within the applicable warranty period for information regarding warranty service.

IV. WHAT THIS WARRANTY DOES NOT COVER:

- A) Defects or damage resulting from use of the Product in other than its normal and customary manner.
- B) Defects or damage from misuse, accident, water, or neglect.
- C) Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.
- D) Breakage or damage to antennas unless caused directly by defects in material workmanship.
- E) A Product subjected to unauthorized Product modifications, disassemblies or repairs (including, without limitation, the addition to the Product of non-Motorola supplied equipment) which adversely affect performance of the Product or interfere with Motorola's normal warranty inspection and testing of the Product to verify any warranty claim.
- F) Product which has had the serial number removed or made illegible.
- G) Accessories, including batteries carry their own separate limited One (1) year warranty.
- H) Freight costs to the repair depot.
- I) A Product which, due to illegal or unauthorized alteration of the software/firmware in the Product, does not function in accordance with Motorola's published specifications or with the FCC type acceptance labeling in effect for the Product at the time the Product was initially distributed from Motorola.
- J) Scratches or other cosmetic damage to Product surfaces that do not affect the operation of the Product.
- K) That the software in the product will meet the purchaser's requirements or that the operation of the software will be uninterrupted or error-free.
- L) Normal and customary wear and tear.
- M) Non-Motorola manufactured equipment unless bearing a Motorola Part Number in the form of an alphanumeric number (i.e., TDE6030B).

V. GOVERNING LAW

In the case of a Product sold in the United States and Canada, this Warranty is governed by the laws of the State of Illinois and the Province of Ontario respectively.

VI. PATENT AND SOFTWARE PROVISIONS:

Motorola will defend, at its own expense, any suit brought against the end user purchaser to the extent that it is based on a claim that the Product or its parts infringe a United States patent, and Motorola will pay those costs and damages finally awarded against the end user purchaser in any such suit which are attributable to any such claim, but such defense and payments are conditioned on the following:

- A) That Motorola will be notified promptly in writing by such purchaser of any notice of such claim;
- B) That Motorola will have sole control of the defense of such suit and all negotiations for its settlement or compromise;
- C) Should the Product or its parts become, or in Motorola's opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit Motorola, at its option and expense, either to procure for such purchaser the right to continue using the product or its parts or to replace or modify the same so that it becomes non-infringing or to grant such purchaser a credit for the Product or its parts as depreciated and accept its return. The depreciation will be an equal amount per year over the lifetime of the product or its parts as established by Motorola.

Motorola will have no liability with respect to any claim of patent infringement which is based upon the combination of the Product or its parts furnished hereunder with software, apparatus or devices not furnished by Motorola, nor will Motorola have any liability for the use of ancillary equipment or software not furnished by Motorola which is attached to or used in connection with the Product. The foregoing states the entire liability of Motorola with respect to infringement of patents by the Product or any of its parts thereof.

Regulations Information

SAFE USAGE NOTIFICATION

For reason of personal safety and optimal radio performance, Motorola has designed the ML910™ RUGGED NOTEBOOK with an intended purpose and position of use either in a secured vehicle docking station or on the top of an office desk.

Motorola strongly recommends using this product in a vehicle only when it is physically-secured in a lock or assured-stationary location as failure to do so may cause the product to cause harm in accidents or other conditions.

US and Canada Class B Regulations

USA

Federal Communications Commission Radio Frequency Interference Statement

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 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 off and on, 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 circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Please note:

The use of a non-shielded interface cable with this equipment is prohibited.

Wireless LAN Module Statement



FCC CAUTION:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

If the ML910™ RUGGED NOTEBOOK computer has the Intel 3945abg module (802.11abg) installed, operation on the 5.15-5.25GHz frequency band is restricted to indoor use only. The FCC requires indoor use for the 5.15-5.25GHz band to reduce the potential for harmful interference to co-channel Mobile Satellite Systems.

When the internal ML910™ RUGGED NOTEBOOK 802.11abg module is configured to the Motorola default state, it will only transmit on the 5.15-5.25GHz band when associated with an access point (AP) that uses the 5.15-5.25GHz band and such applications should only be used indoors.

Use in the 802.11a frequency range is limited to client-AP association. Client-client association (AD HOC mode) is not supported.

FCC External Antenna Placement

When the Motorola WMC6300 or WMC7300 PCMCIA radio modems are integrated in the PCMCIA slot of the ML910™ RUGGED NOTEBOOK, the external antenna must be placed as shown in the picture below to comply with FCC RF exposure requirements.



FCC RF Exposure Statement

This equipment complies with FCC RF exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and all persons. See page 1-10 of the Users Guide for antenna locations.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC RF Exposure Warning

The ML910™ RUGGED NOTEBOOK provides a PCMCIA slot that could be used with PCMCIA based wireless transmitters. Motorola only supports the use of PCMCIA based wireless transmitter cards that have been approved for use in the ML910™. Currently the WMC6300, WMC7300, and WDE1000 have been approved. Other 3rd party PCMCIA based wireless transmitters have not been RF exposure evaluated for use in the ML910 and may not comply with FCC RF exposure requirements.

IMPORTANT NOTE:

To comply with FCC RF exposure compliance requirements, the antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter other than those approved for use in Motorola series ML910™ RUGGED NOTEBOOK.

Canada

Canadian Department of Communications Radio Interference Regulations Class B Compliance Notice

This Class B digital apparatus meets all requirements of the Canada Interference-Causing equipment regulations.

Cet appareil numérique de Classe B respecte toutes les exigences du Règlement Canadien sur le matériel brouilleur.

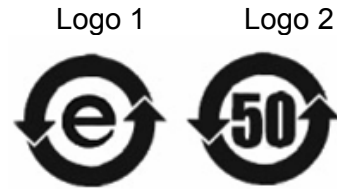
This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

CMM labeling and Disclosure Table

The People’s Republic of China require that our products comply with China Management Methods (CMM) environmental regulations. (China Management Methods refers to the Regulation Management Methods for Controlling Pollution by Electronic Information Products.) Two items are used to demonstrate compliance; the Label and the Disclosure Table.

The label is placed in a customer visible position on the product. The first of the following examples means that the product contains no hazardous substances; the second means that the product contains hazardous substances, and has an Environmental Friendly Use Period (EFUP) of fifty years.



The Environmental Friendly Use Period (EFUP) is the period (in years) during which the Toxic and Hazardous Substances (T&HS) contained in the Electronic Information Product (EIP) will not leak or mutate causing environmental pollution, or bodily injury from the use of the EIP.

The Disclosure Table, printed in simple Mandarin, is included with each customer order. An example of the Disclosure Table follows, in both Mandarin and English.

Disclosure table

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr ⁶⁺)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件	×	○	×	×	○	○
电路模块	×	○	×	×	○	○
电缆及电缆组件	×	○	×	×	○	○
塑料和聚合物部件	○	○	○	○	○	×

○: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。
 ×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。

European Union CE Marking and Compliance Notices

Statements of Compliance

English

This product follows the provisions of the European Directive 1999/5/EC.

Danish

Dette produkt er i overensstemmelse med det europæiske direktiv 1999/5/EC.

Dutch

Dit product is in navolging van de bepalingen van Europees Directief 1999/5/EC.

Finnish

Tämä tuote noudattaa EU-direktiivin 1999/5/EC määräyksiä.

French

Ce produit est conforme aux exigences de la Directive Européenne 1999/5/EC.

German

Dieses Produkt entspricht den Bestimmungen der Europäischen Richtlinie 1999/5/EC.

Greek

Το προϊόν αυτό πληροί τις προβλέψεις της Ευρωπαϊκής Οδηγίας 1999/5/EC.

Icelandic

Þessi vara stent reglugerð Evrópska Efnahags Bandalagsins númer 1999/5/EC.

Italian

Questo prodotto è conforme alla Direttiva Europea 1999/5/EC.

Norwegian

Dette produktet er i henhold til bestemmelsene i det europeiske direktivet 1999/5/EC.

Portuguese

Este produto cumpre com as normas da Diretiva Europeia 1999/5/EC.

Spanish

Este producto cumple con las normas del Directivo Europeo 1999/5/EC.

Swedish

Denna produkt har tillverkats i enlighet med EG-direktiv 1999/5/EC.

Local Restrictions of 802.11a/b/g Radio Usage



CAUTION:

Due to the fact that the frequencies used by 802.11a/b/g wireless LAN devices may not yet be harmonized in all countries, 802.11a/b/g products are designed for use only in specific countries or regions, and is not allowed to be operated in countries or regions other than those of designated use. As a user of these products, you are responsible for ensuring that the products are used only in the countries or regions for which they were intended and for verifying that they are configured with the correct selection of frequency and channel for the country or region of use. Any deviation from permissible settings and restrictions in the country or region of use could be an infringement of local law and may be punished as such.

The European variant is intended for use throughout the European Economic Area. However, authorization for use is further restricted in particular countries or regions within countries, as follows:

General

European standards dictate maximum radiated transmit power of 100 mW Effective Isotropic Radiated Power (EIRP) in the frequency range 2400 – 2483.5 MHz.

Belgium and the Netherlands

In Belgium and the Netherlands, the product may not be used outdoors. See the instructions next under the heading “How to Turn Off the Wireless LAN Radio.”

France

Departments in Which the Wireless LAN Module Can Be Used (Indoors Only)

The wireless LAN module can currently be used indoors only in the following 38 departments of mainland France. Please turn off your wireless LAN radio when operating the device in areas/places other than the 38 departments listed:

01	Ain Orientales	36	Indre	66	Pyrénées
02	Aisne	37	Indre et Loire	67	Bas Rhin
03	Allier	41	Loir et Cher	68	Haut Rhin
05	Hautes Alpes	42	Loire	70	Haute Saône
08	Ardennes	45	Loiret	71	Saône et Loire
09	Ariège	50	Manche	75	Paris
11	Aude	55	Meuse	82	Tarn et Garonne
12	Aveyron	58	Nièvre	84	Vaucluse
16	Charente	59	Nord	88	Vosges
24	Dordogne	60	Oise	89	Yonne
25	Doubs	61	Orne	90	Territoire de Belfort
26	Drôme	63	Puy du Dôme	94	Val de Marne
32	Gers	64	Pyrénées Atlantique		

Departments in Which the Wireless LAN Module's Maximum EIRP Not Shown in the Previous Table

Frequency Ranges (MHz)	Indoors	Outdoors
2400 – 2446.5	10 mW	Not permitted
2446.5 – 2483.5	100 mW	100 mW on private property with Ministry of Defense approval

Turning Off the Wireless LAN Radio

NOTE:

1. Turning the wireless LAN radio off is not the same as disabling the wireless LAN card.
2. It is not necessary to disable the card to meet the regulatory requirements.
3. While operating the computer in those French departments that do not allow use of the wireless LAN equipment, the user of the equipment must turn off the wireless LAN radio in order to comply with local regulations.

Product Safety and RF Exposure Information



CAUTION:

BEFORE USING ML910™ RUGGED NOTEBOOK, READ THIS SECTION WHICH CONTAINS IMPORTANT OPERATING INSTRUCTIONS FOR SAFE USAGE AND RF ENERGY AWARENESS AND CONTROL INFORMATION FOR COMPLIANCE WITH RF ENERGY EXPOSURE LIMITS IN APPLICABLE NATIONAL AND INTERNATIONAL STANDARDS.

Compliance with RF Energy Exposure Standards

NOTE:

ML910™ RUGGED NOTEBOOK is intended for general population, consumer or similar use; where users are not necessarily aware of the potential for exposure and may not exercise control over their exposure. This product safety section includes useful information about RF exposure and helpful instructions on how to control your RF exposures. For additional information on exposure requirements or other training information, visit <http://www.motorola.com/rfhealth>.

Radio Frequency Interference Requirements and SAR

The FCC with its action in ET Docket 93-62 has adopted a safety standard for human exposure to Radio Frequency (RF) electromagnetic energy emitted by FCC certified equipment. All wireless modules meets the Human Exposure limits found in OET Bulletin 65, 2001 and IEEE Std C95.1™-2005. Proper operation of this radio according to the instructions found in this manual will result in exposure substantially below the FCC's recommended limits. The following safety precautions should be observed:

- Do not touch or move antenna while the unit is transmitting or receiving.
- Do not operate the radio or attempt to transmit data unless the antenna is connected; if not, the radio may be damaged.

Electromagnetic Interference/Compatibility

NOTE:

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed or otherwise configured for electromagnetic compatibility.

Facilities

To avoid electromagnetic interference and/or compatibility conflicts, turn off your ML910™ RUGGED NOTEBOOK and/or integrated radios in any facility where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.

Aircraft

When instructed to do so, turn off your ML910™ RUGGED NOTEBOOK and/or integrated radios when on board an aircraft. Any use of a ML910™ RUGGED

NOTEBOOK or radio must be in accordance with applicable regulations per airline crew instructions.

Medical Devices

Pacemakers

Keep the antennas of ML910™ RUGGED NOTEBOOK at least 8 inches (20cm) away from any person's body. Along with ensuring compliance with the RF energy exposure limits (as instructed in the RF Energy Exposure section previously), this separation distance meets or exceeds the distance recommendation of pacemaker manufacturers and the FCC to avoid interference with pacemakers.

Hearing Aids

Some digital wireless radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

Driver Safety

Always abide by the laws and regulations on the use of computers and/or integrated radios in the area where you drive.

When using ML910™ RUGGED NOTEBOOK and/or radio while driving, please:

- Give full attention to driving and to the road.
- Pull off the road and park before using the equipment if driving conditions so require.

Operational Warnings

For Vehicles with an Air Bag

Do not place a ML910™ RUGGED NOTEBOOK in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a ML910™ RUGGED NOTEBOOK is placed in the air bag deployment area and the air bag inflates, ML910™ RUGGED NOTEBOOK may be propelled with great force and cause serious injury to occupants of the vehicle.

Potentially Explosive Atmospheres

Turn off your ML910™ RUGGED NOTEBOOK prior to entering any area with a potentially explosive atmosphere. Do not remove, install, or charge batteries in such areas. Sparks in a potentially explosive atmosphere can cause an explosion or fire

resulting in bodily injury or even death. The areas with potentially explosive atmospheres referred to above include fuelling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles, such as grain, dust or metal powders. Areas with potentially explosive atmospheres are often but not always posted.

Blasting Caps and Areas

To avoid possible interference with blasting operations, turn off ML910™ RUGGED NOTEBOOK when you are near electrical blasting caps, in a blasting area, or in areas posted: "Turn off two-way radio". Obey all signs and instructions.

Operational Cautions

Antennas

Do not use the integrated radios of any ML910™ RUGGED NOTEBOOK that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.

Batteries

All batteries can cause property damage and/or bodily injury such as burns if conductive materials such as jewelry, keys, or beaded chains touch exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects.

About the Battery



Caution Texts Concerning Lithium Batteries

DANISH



ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

NORWEGIAN



ADVARSEL:

Eksplosjonsfare ved feilaktig skifte av batteri. Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten. Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

SWEDISH



WARNING:

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

FINNISH



VAROITUS:

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan valmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

ENGLISH



CAUTION:

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

DEUTSCH



VORSICHT:

Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

FRENCH



ATTENTION:

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.



Attention (for USA Users)

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

About the Modem

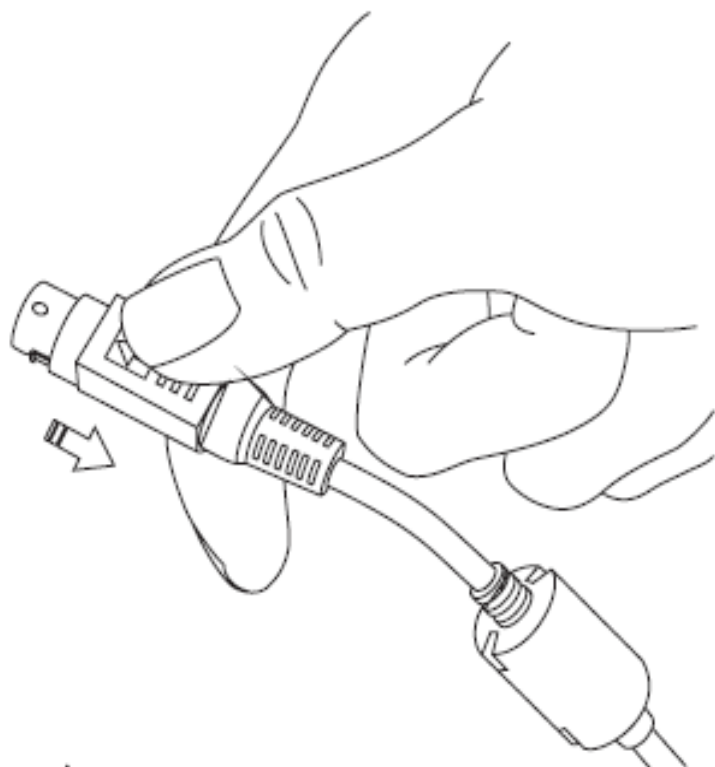


CAUTION:

1. Never install telephone wiring during a lightning storm.
2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.
5. Avoid using the telephone function (other than a cordless-type) during an electrical storm. There may be a remote risk of electric shock from lightning.
6. Do not use the telephone function to report a gas leak in the vicinity of the leak.
7. Do not use this product near water, for example near a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.

About the AC Adapter

1. Use only the AC adapter supplied with your computer. Use of another type of AC adapter will result in malfunction and/or danger.
2. Do not use the adapter in a high moisture environment. Never touch the adapter when your hands or feet are wet.
3. Allow adequate ventilation around the adapter when using it to operate the device or charge the battery. Do not cover the AC adapter with paper or other objects that will reduce cooling. Do not use the AC adapter while it is inside a carrying case.
4. Connect the adapter to a proper power source. The voltage requirements are found on the product case and/or packaging.
5. Do not use the adapter if the cord becomes damaged.
6. Do not attempt to service the unit. There are no serviceable parts inside. Replace the unit if it is damaged or exposed to excess moisture.



⚠ CAUTION! DO NOT PULL THE WIRE TO UNPLUG!

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Preface

This user guide contains information that will help you operate the computer. It is divided into 10 chapters and 3 appendices.

Chapter 1, **Getting Started**, takes you through the process of setting up the computer and identifying its external components.

Chapter 2, **Operating Your Computer**, tells you how to use the computer's components and features.

Chapter 3, **Managing Power**, provides information on power.

Chapter 4, **Expanding Your Computer**, provides information on installing and using peripheral devices.

Chapter 5, **BOIS Setup**, describes the SCU program that configures the computer's BIOS settings.

Chapter 6, **Installing Software Drivers**, describes how to install the drivers and utilities supplied with the computer.

Chapter 7, **Caring for the Computer**, gives you tips in care and maintenance.

Chapter 8, **Troubleshooting**, gives solutions to common problems you may encounter when using the computer.

Chapter 9, **The Accessories List**, give reference components for your replacement.

Chapter 10, **The Acronyms and Glossary**, Let user understand real means of Acronyms when they read User Guide.

Appendix A, **Specifications**, gives a brief specification of the computer.

Appendix B, **Fingerprint Recognition System**, gives a brief safety measures.

Appendix C, **RoHS / WEEE**, World Wide RoHS / WEEE Standard.

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Getting Started

Congratulations on your purchase of the ML910™ RUGGED NOTEBOOK.

This high performance notebook computer is especially designed for the practical applications of warehouses, automobiles, vehicles, public security, repairing, assisting the handicapped, and other demanding situations where conventional notebook computers just cannot measure up.

This chapter first tells you step by step how to get the computer up and running. You will find instructions for these procedures:

- Unpacking
- Connecting to the AC power
- Opening the cover
- Turning on the computer
- Turning off the computer

Then, you will find a section briefly introducing the external components of the computer. The last section navigates you to the information you may need after the computer is ready for use.

Getting the Computer Running

This section guides you through the procedures for getting the computer ready for operation.

Unpacking

After unpacking the shipping carton, you should find these standard items:

- Notebook computer
- Accessories:
 - AC adapter (100~240 VAC, 50/60 Hz)
 - AC power cord (US)
 - Battery
 - CD including Drivers and User Guide
 - Windows XP Operating System CD
 - PCMCIA to Express 34 Card Converter
 - Nero OEM Suite CD

Inspect all the items. If any item is damaged or missing, notify your dealer immediately.

Keep the shipping carton and packing materials in case you need to ship or store the computer in the future.

Installing the Battery Pack

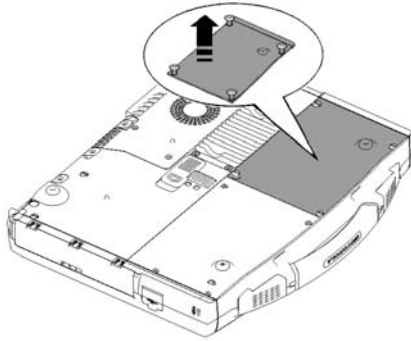


CAUTION:

1. There is danger of damage if the battery is incorrectly installed.
2. Do not attempt to disassemble the battery pack.

To install the battery pack, follow these steps:

1. Make sure the computer is not on or connected to the AC power.
2. Loosen the four screws and lift the battery pack compartment cover to take it off the computer.



3. Insert the battery pack into the compartment.
4. Replace the compartment cover and secure the four screws.

Initializing the Battery Pack

You need to initialize the new battery pack before using it for the first time or when the actual operating time of a battery pack is less than expected.

Initializing is the process of fully charging, discharging, and then charging that can take several hours.

1. Make sure the computer is turned off. Connect the AC adapter to fully charge the battery pack.
2. After the battery pack is fully charged, turn on the computer.
3. Disconnect the AC adapter and leave the computer on until the battery is fully discharged. The computer will shut down automatically.
4. Connect the AC adapter to fully charge the battery pack.

Connecting to AC Power

The computer operates on either the external AC power or the internal battery power. We recommend that you use AC power when you start up the computer for the first time.



CAUTION:

Use only the AC adapter included with your computer. Use of any other AC adapters may damage the computer.

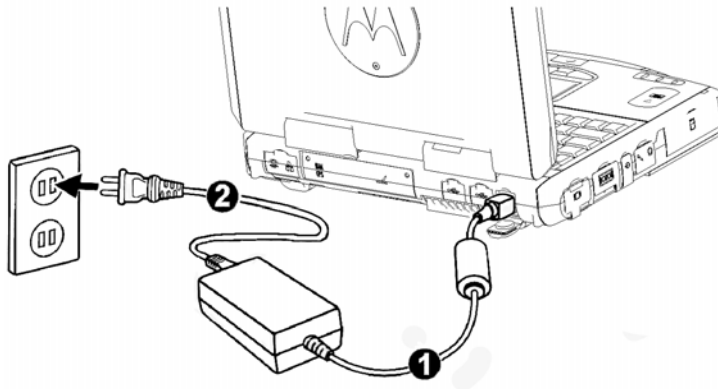
NOTE:

Power Supply Cord:

For US territory: Detachable, minimum 1.8m long. Listed, rated minimum 125V, 2.5A, having a 3/18 AWG, flexible cord. One end terminates with a molded-on, attachments plug with a 10A, 125V (NEMA 5–15) configuration; other end terminates with a molded-on appliance coupler.

For UK territory: Detachable, minimum 1.8m long. Listed, rated minimum 250V, 2.5 A, having a 3/0.75mm², flexible cord. One end terminates with a molded-on, attachments plug with a 3A, 250V (BS1363), and 3 A fuse configuration; other end terminates with a molded-on appliance coupler.

5. Make sure the computer is turned off.
6. Plug the DC cord of the AC adapter to the power connector on the rear side of the computer (❶).
7. Plug the female end of the AC power cord to the AC adapter and the male end to an electrical outlet (❷).



8. When the AC adapter is connected, the indicator on the AC adapter lights up, indicating that power is being supplied from the electrical outlet to the AC adapter and onto your computer. Now, you are ready to turn on the computer.



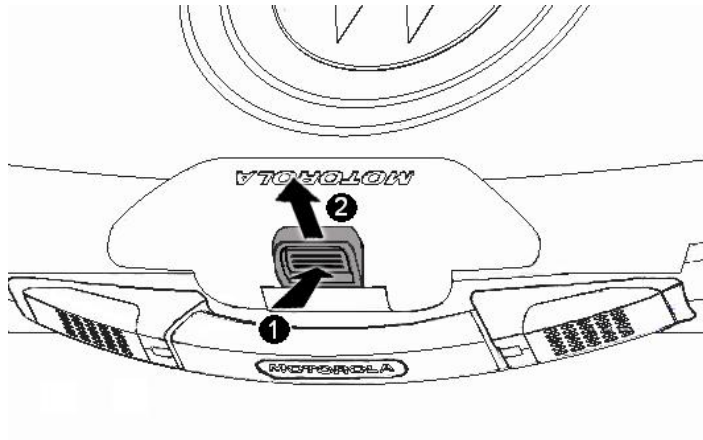
CAUTION:

1. When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the computer. A reverse procedure may damage the AC adapter or the computer.
2. When unplugging the connector, always hold the plug head. Never pull on the cord.

NOTE:

When the AC adapter is connected, it also charges the battery pack. For information on using battery power, see Chapter 3.

Opening the Cover

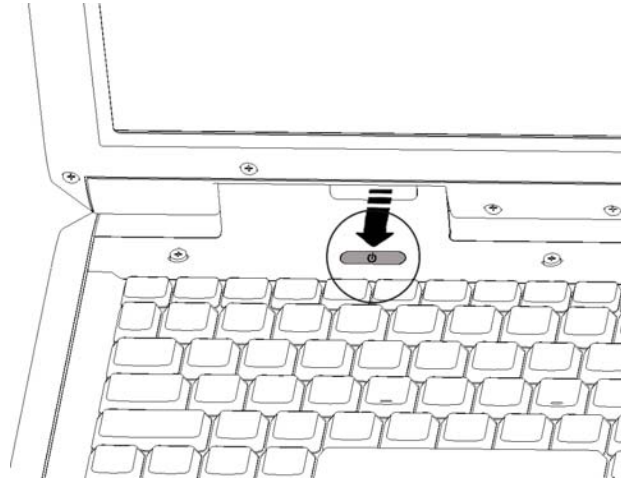


1. Press the top cover latch
2. Lift up the cover. You can tilt the cover forward or backward for optimal viewing clarity.

Turning On and Off the Computer

Turning On

3. Make sure the computer has a charged battery or is connected to the AC power supply.
4. Press the power button.



5. Each time the computer is turned on, it performs a Power-On Self Test (POST), and the operating system (such as Windows) should load.

Turning Off

To turn off the computer safely, use the “Shut Down” command of your operating system.

NOTE:

1. Pressing the power button for 4 seconds or longer will shut the computer off. If the power button is held for 10 seconds or more once the computer is turned off, this will cause the internal controller to reset.
2. There are other ways to turn off the computer that can allow you to return to the state where you left off. Please refer to “Shutting Down the Computer” in Chapter 2 for more information.

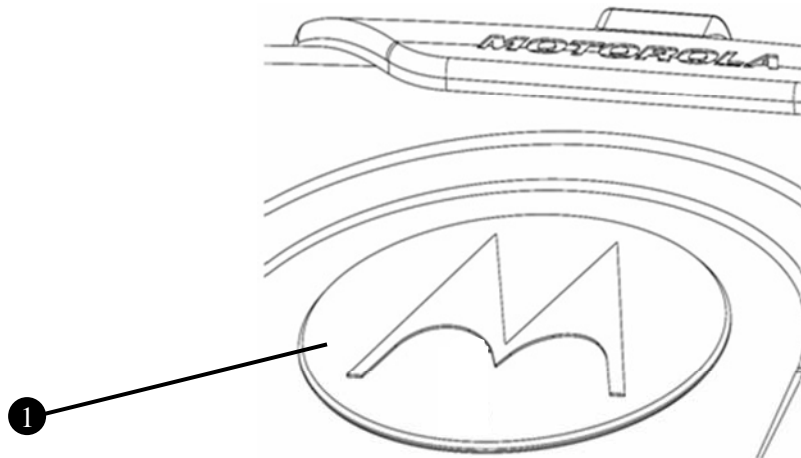
Taking a Look at the Computer

This section identifies the external components of the computer and briefly describes the function of each component.

NOTE:

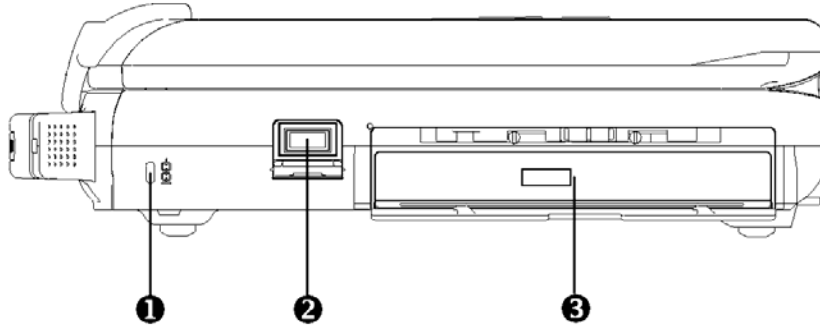
Depending on the model you purchased, the appearance of your computer may not exactly be the same as those shown in this user guide.

Top of the Computer



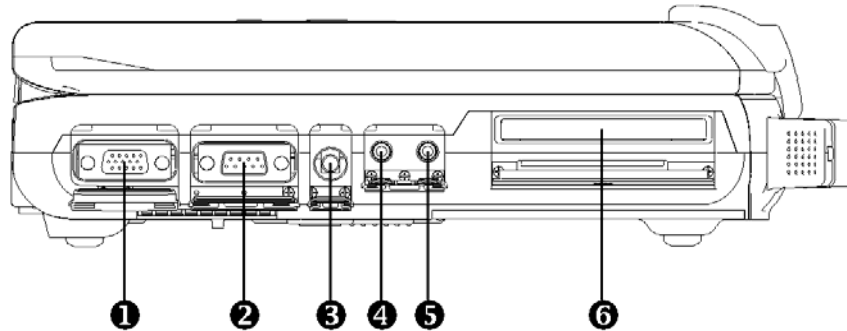
Ref	Component	Description	See Also
1	Internal Modem Compartment	Behind the M logo is a compartment which provides the various connection for installing internal modems.	C-2

Right-Side Components



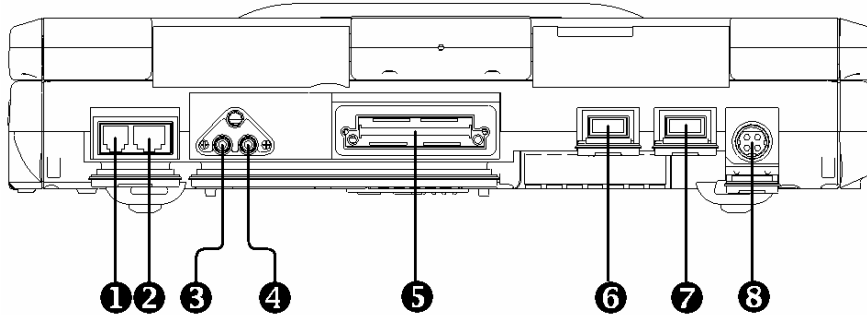
Ref	Component	Description	See Also
①	Security Lock Slot	Connects an optional security lock to anchor the computer to a desk or other large object.	
②	USB Port	Supports USB 2.0 (i.e. USB High Speed Devices) and Legacy USB Full and Low Speed Devices (i.e. USB 1.1 and US B1.0); and up to 1A load for each USB Port.	P. 4-3
③	Configurable Media Bay	Accepts an Optical Disc Drive (ODD) for installing or loading software, accessing data, and playing music/video. This bay can also accept the optional second battery or second hard drive.	P. 2-12

Left-Side Components



Ref	Component	Description	See Also
①	VGA Port	Connects an external monitor.	P. 4-2
②	Serial Port	Connects a RS-232 device.	P. 4-4
③	Video Capture Port	This is a video input port, that can connect to a video capture device.	P. 4-5
④	Microphone Connector	Connects an external microphone.	P. 2-17
⑤	Audio Output Connector	Connects a set of headphones, external speakers with amplifier, or an audio recording device. The audio jack also supports S/PDIF optical standard and is capable of interfacing a mini-toslink for optical S/PDIF.	P. 2-17
⑥	PC Card Slot	Accepts a Type II PCMCIA/CardBus card or USB ExpressCard/34 via USB Express Card adapter for additional functions.	P. A-2

Rear Components



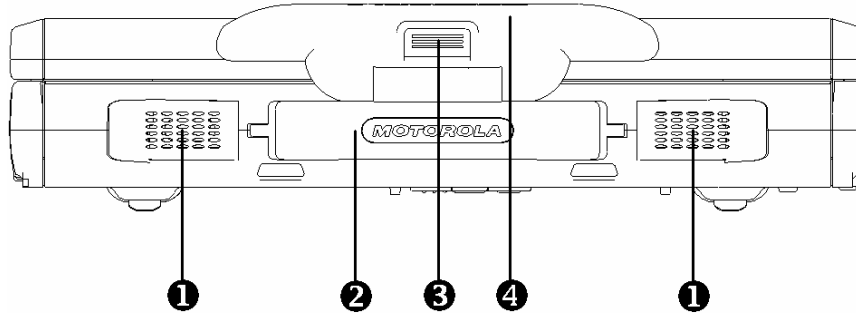
Ref	Component	Description	See Also
①	RJ-11 Port	Connects the telephone line.	P. 2-18
②	RJ-45 Port	Connects the LAN cable. Included a link indicator and an active indicator.	P. 2-18
③	GPS RF Pass-through Port"	Serves as the interface between the system and external GPS antenna.	P. 2-23
④	WWAN Module RF Pass-through Port"	Serves as the interface between the system and antenna of the optional WWAN module.	P. 2-22
⑤	Docking Port	For connecting to an Office Port Replicator or Vehicle Dock (both are available as an option).	
⑥	USB Port 1 USB Port 2	Supports USB2.0 (i.e. USB High Speed Devices) and Legacy USB Full and Low Speed Devices (i.e. USB 1.1 and YSB1.0); and up to 1A load for each USB Port.	P. 4-3
⑧	Power Connector	Connects the AC adapter.	P. 1-2



CAUTION:

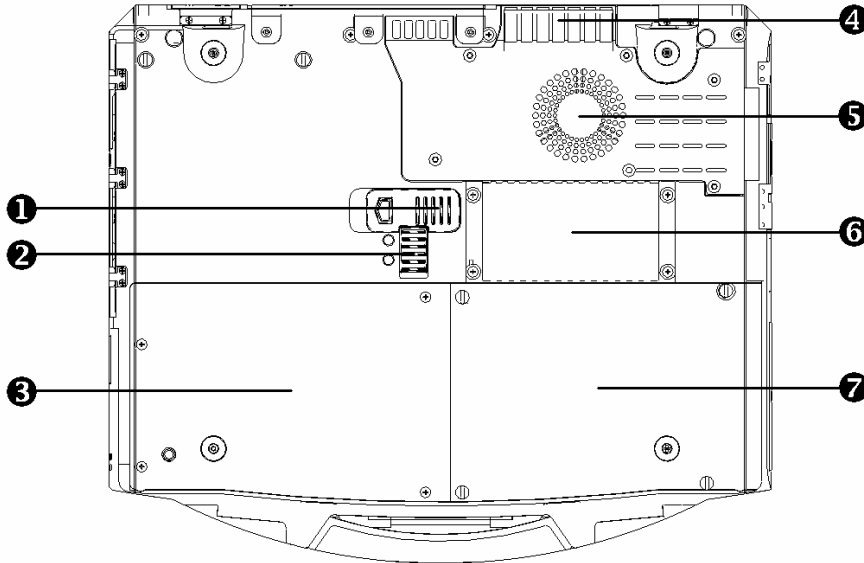
Connection of external antenna (GPS, WWAN) by using the RF Pass-Thru ports when the ML910™ RUGGED NOTEBOOK will be used outside of a car without the vehicle docking station is not an FCC certified configuration. Customers should not configure their systems in this way.

Front Components



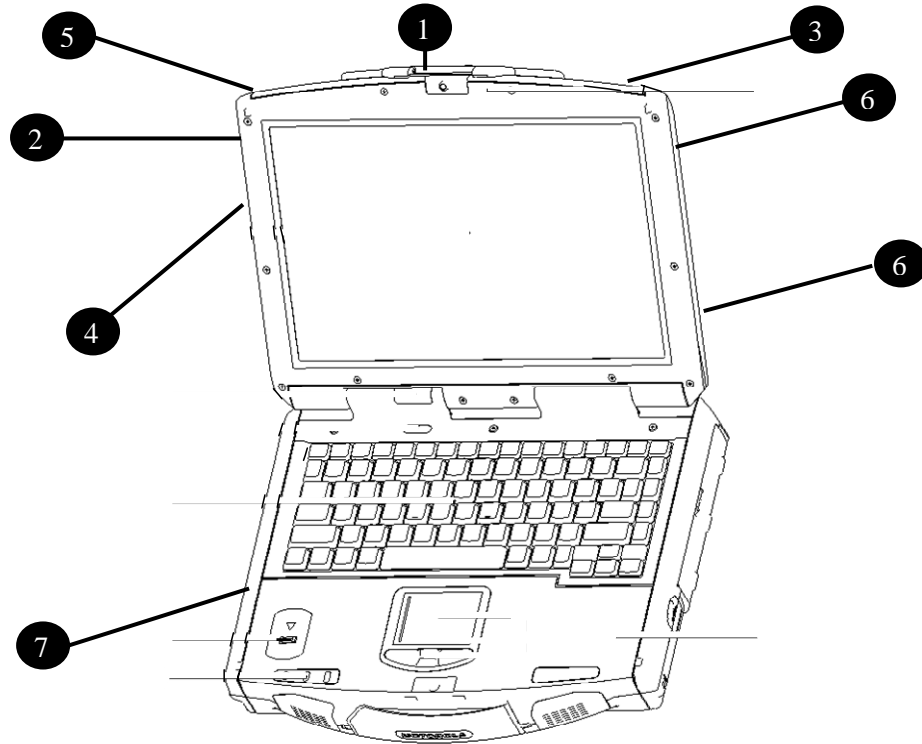
Ref	Component	Description	See Also
①	Stereo Speaker Set	Output stereo audio from the computer.	P. 2-17
②	Handle	Allows you to carry your computer with an easy grip.	
③	Top Cover Latch	Locks the top cover.	P. 1-5
④	GPS Antenna (optional)	Serves as an antenna for the Global Positioning System (GPS). It is built into the top cover.	P. 2-23

Bottom-Side Components



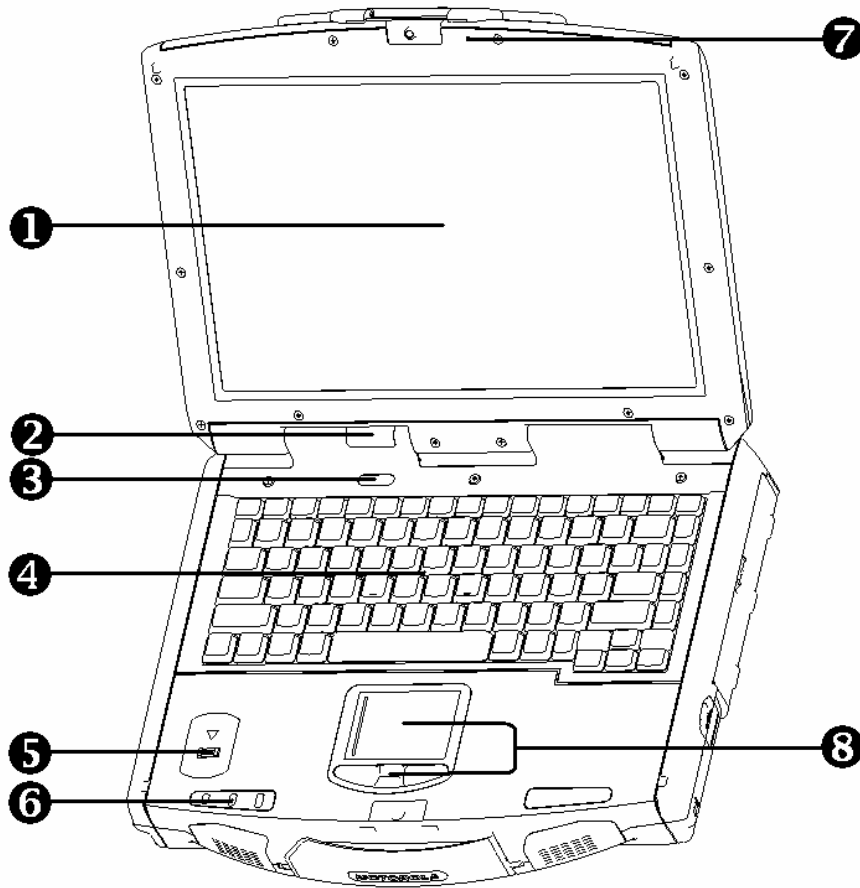
Ref	Component	Description	See Also
①	Configurable Media Bay Eject Latch	Allows you to remove the Optical Disk Drive, Second Battery or Second Hard Drive.	P. 2-12
②	Configurable Media Bay Lock/Unlock Switch	Allows you to lock the Optical Disk Drive, Second Battery or Second Hard Drive in place	P. 2-13
③	Hard Disk Drive Compartment	Contains the hard disk drive of your computer.	P. 2-11
④	Ventilation Openings	Allow for air circulation to prevent overheating and do not cover or block the ventilation openings.	
⑤	CPU Cooling Fan	Contains cooling fan to protect it from overheating.	
⑥	Memory Compartment	Contains the memory compartment for expanding the memory size of your computer.	P. 4-6
⑦	Main Battery Pack Compartment	Supplies power to your computer when the external power is not connected.	P. 2-12



Antenna Location (Integrated Radio Modems)








Ref	Component	Description	See Also
①	GPS Antenna	For with Optional GPS Receiver	NA
②	External PCMCIA Antenna Mount Location	For WMC6300 & WMC7300	X
③	WWAN Antenna 1	Primary – TX and RX -- MC8775 and MC5725	NA
④	WLAN Antenna 1	Primary TX and RX	NA
⑤	WWAN Antenna 2	Secondary – RX only -- MC5725	NA
⑥	WLAN Antenna 2	Secondary – RX only	NA
⑦	Bluetooth		NA
⑧	External PCMCIA Antenna Location	WDE1000	x

Top-Open Components



Ref	Component	Description	See Also
1	LCD Screen with touch panel	Displays the output of the computer.	P.2-9
2	Device Indicators  	Show the current status of the computer's devices.	P. 3-2 & 3
		Power on: Green color.	
		Standby mode: Amber color.	
		Hard disk drive in-use: Amber color (Blinking).	P. 2-11
Hard disk heater is on: Red color (Blinking).			

Ref	Component	Description	See Also
②		Battery charging indicator.	P.3-3
		Battery full: Glows green.	
		Battery charging: Glows amber.	
		Battery low: Red (Blinking).	
		AC indicator.	P. 1-4 or P. 3-2
		Glows green when the computer is connected to AC power.	
③	Power Button	Turns your computer ON or OFF.	P. 1-5
④	Keyboard	Serves as the data input device of the computer.	P. 2-3
⑤	Fingerprint Scanner	Contains the fingerprint scanner.	P. B-1
⑥	Device Indicators	Show the current status of the computer's devices.	
		Touchpad indicator – Glows green (or red) when the touchpad is enabled press Fn+F2 to toggle the touchpad on/off. (or disabled).	P. 2-8
		Num Lock indicator.	P. 2-3
		Caps Lock indicator.	P. 2-3
⑦	Light Sensor	Detects ambient light and automatically turns on/off the keyboard backlight function. Hot keys: Fn+F1.	P. 2-3 P. 2-5
⑧	Touchpad / Touchpad Buttons	Serves as the pointing device of the computer.	P.2-7

Where to Go from Here

As your computer is ready for operation, you may want to do any of the following now:

For this purpose...	Do this...
To know more about the computer...	Go on to the next chapter.
To install the operating system if your dealer has not already done so...	See the operating system manual.
To know more about the operating system...	Read the operating system manual.
To install the drivers if your dealer has not already done so...	See Chapter 6.
To set a power-on password...	See "Security Settings" in Chapter 5.
To charge the battery pack for the first time...	See "Charging the Battery Pack" in Chapter 3.

Operating Your Computer

This chapter provides information about the use of the computer.

If you are new to computers, reading this chapter will help you learn your computer's basic operations. If you are already a computer user but are new to notebook computers, you may choose to read only the parts containing information unique to your computer.

This chapter describes the following components:

- Keyboard
- Touchpad
- Touchscreen
- Hard disk drive
- Optical disk drive

And these features:

- Starting and shutting down the computer
- Video features
- Audio features
- Communication features

Starting and Shutting Down the Computer

There are a number of ways to start and stop the computer.

Starting the Computer

You always start the computer using the power button.

A computer starts up with an operating system (OS) existing on the storage device such as the hard disk; or from a CD if you have the respective modules installed. The computer will automatically load the OS after you turn it on. This process is called booting.

NOTE:

An operating system is the platform for all your software application programs to run on. The most widely used operating system today is Microsoft Windows.



CAUTION:

Do not use a sharp object such as a ballpoint pen or pencil on the power button. Doing so may damage the power button surface.

Shutting Down the Computer

When you finish a working session, you can stop the computer by turning off the power or leaving the computer in Standby or Hibernation mode:

To stop in this mode...	Do this...	To start up or resume again
Off	Follow the shutdown procedure of your operating system. This can prevent loss of unsaved data or damage to your software programs. If the system locks up because of hardware or software problems, press the power button to turn off the computer.	Press the power button.
Standby	Depending on your Windows settings, you can place the computer in Standby mode by: <ul style="list-style-type: none">· Closing the display cover· Pressing the power button	Press any key.
Hibernation	Depending on your Windows settings, you can place the computer in Hibernation mode by: <ul style="list-style-type: none">· Closing the display cover· Pressing the power button	Press the power button.

NOTE:

1. Placing your computer in Standby or Hibernation mode allows you to return to the tasks you were doing the next time you start up the computer. (See “Power Management” in Chapter 3 for more information.)
2. Pressing the power button for 4 seconds or longer will shut the computer off. If the power button is held for 10 seconds or more, once the computer is turned off, this will cause the internal controller to reset.

**CAUTION:**

Using the power button to shut down the computer can cause damage to the OS when shutting down.

Using the Keyboard

Your keyboard has all the standard functions of a full-sized computer keyboard with an additional Fn key for specific functions.

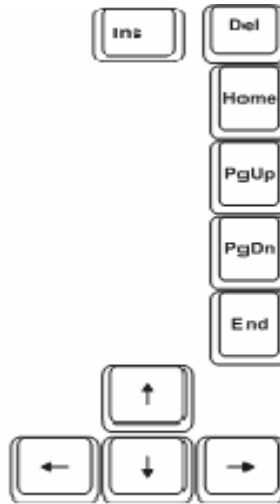
The standard functions of the keyboard are divided into four major categories:

- Typewriter keys
- Cursor-control keys
- Numeric keys
- Function keys

Typewriter Keys

Typewriter keys are similar to the keys on a typewriter. Several keys that are not found on the typewriter, such as the Ctrl, Alt, Esc, and lock keys, are added for special purposes. When the lock keys (Caps Lock, Num Lk, and Scroll Lk) are pressed, their corresponding indicators will light up.

Cursor-Control Keys

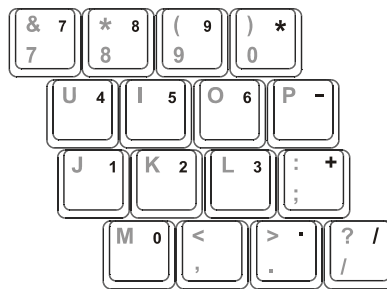


NOTE:

1. The word “cursor” refers to the indicator on the screen that lets you know exactly where on your screen anything you type will appear.
2. It can take the form of a vertical or horizontal line, a block, or one of many other shapes.

Numeric Keypad

A 15-key numeric keypad is embedded on the typewriter keys as shown next:



Numeric keys facilitate the entering of numbers and calculations. When Num Lock is turned on, the numeric keys are activated; meaning you can use these keys to enter numerals.

NOTE:

1. When the numeric keypad is activated and you need to type the English letter in the keypad area, you can turn Num Lock off or you can press Fn and then the letter without turning Num Lock off.
2. Some software may not be able to use the numeric keypad on the computer. If so, use the numeric keypad on an external keyboard instead.



Euro Symbol


For the Euro dollar sign €:


On an UK keyboard, hold down the Alt Gr key and press 4 (which has a Euro sign on it).

Windows Keys

The keyboard has two keys that perform Windows-specific functions:

 Windows Logo key and  Application key.

The  Windows Logo key opens the Start menu and performs software-specific functions when used in combination with other keys.

The  Application key has the same effect as a right mouse click. (See your Windows manual for more information.)

Function Keys

On the top row of the keyboard are the function keys: F1 to F12. Function keys are multi-purpose keys that perform operations defined by the individual programs.

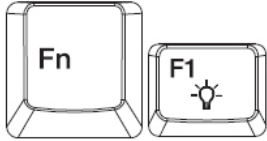




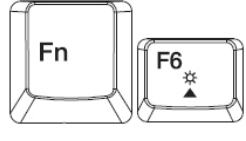
Fn Key

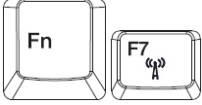
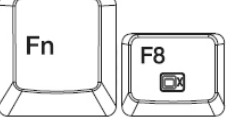
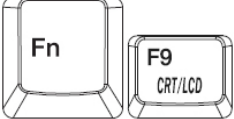

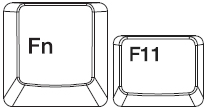
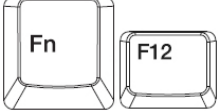
The **Fn** key, located at the lower left corner of the keyboard, is used with another key to perform the alternative function of a key. The letter “Fn” and the alternative functions are identified by the blue colored labels on the key top. To perform a desired function, first press and hold **Fn**, then press the other key.

Hot Keys

Hot keys refer to a combination of keys that you can press at any time to activate special functions of the computer. Most hot keys operate in a cyclic way. Each time a hot key combination is pressed, it shifts the corresponding function to the other or next choice.

You can easily identify the hot keys with the icons imprinted on the key top. Refer to the table below to understand the functions of the hot keys:

Key	Description
	Enables/Disables the keyboard backlight function.
	Enables/Disables the Touchpad.
	Decreases the sound volume.
	Increases the sound volume.
 	<ol style="list-style-type: none">1. Fn+F5: going to decreases the LCD brightness.2. Fn+F6: going to increases the LCD brightness.3. There are 5 levels of LCD brightness. (0 is no backlight)

Key	Description
	Fn+F7 hotkey turn on/off all wireless devices. i.e. WLAN, WWAN, GPS and Bluetooth.
	Switches the LCD off and on.
	Switches the display output when an external device is connected. This is a circular change i.e. LCD to CRT to CRT and LCD back to CRT.
	Serves as the sleep button that you can define with Windows' Power Management. (See the "Power Management" in Chapter 3.)
	Switches the LCD backlight on and off.
	Switches the Optional GPS Receiver on and off.

Using the Touchpad



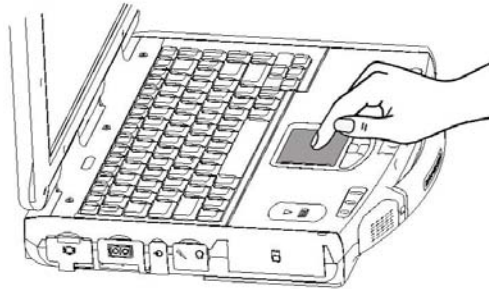
CAUTION:

1. Do not use a sharp object such as a pen on the touchpad.
2. Doing so may damage the touchpad surface as well as for RUBBER part of the touchpad section.

NOTE:

1. By default, the touchpad is enabled. Use the Fn+F2 hot keys to enable/disable this function. The touchpad indicator found on the keyboard panel glows red when it is disabled.
2. For optimal performance of the touchpad, keep your fingers and the pads clean and dry. When tapping on the pad, tap lightly. Do not use excessive force.

The touchpad is a pointing device that allows you to communicate with the computer by controlling the location of the pointer on the screen and making selection with the buttons.



The touchpad consists of a rectangular pad and four buttons. To use the touchpad, place your forefinger or thumb on the pad. The rectangular pad acts like a miniature duplicate of your display. As you slide your fingertip across the pad, the pointer (also called cursor) on the screen moves accordingly. When your finger reaches the edge of the pad, simply lift the finger and place it on the other side of the touchpad. Here are some common terms that you should know when using the touchpad:

Term	Action
Point	Move your finger on the pad until the cursor points to the selection on the screen.
Click	Press and release the left button. —or— Tap gently anywhere on the pad.
Double-click	Press and release the left button twice in quick succession. —or— Tap twice on the pad rapidly.

Term	Action
Drag and drop	<p>Press and hold the left button, then move your finger until you reach your destination (drag). Finally, release the button (drop) when you finish dragging your selection to the destination. The object will drop into the new location.</p> <p>–or–</p> <p>Gently tap twice on the pad and on the second tap, keep your finger in contact with the pad. Then, move your finger across the pad to drag the selected object to your destination. When you lift your finger from the pad, the selected object will drop into place.</p>
Scroll	<p>To scroll is to move up and down or left and right in the working area on the screen.</p> <p>The scroll button located between the two buttons under the touchpad can be used to move vertically in a convenient way. Press the upper part of the scroll button to move up and the lower part of the scroll button to move down.</p> <p>–or–</p> <p>To move vertically, place your finger on the right edge of the pad and slide your finger up and down along the edge. To move horizontally, place your finger on the bottom edge of the pad and slide your finger left and right.</p> <p>This function works only after you install the touchpad driver supplied with the computer and it may not work for all applications.</p>

NOTE:

If you swap the left and right buttons, “tapping” on the touchpad as an alternative method of pressing the left button will no longer be valid.

Configuring the Touchpad

You may want to configure the touchpad to suit your needs. For example, if you are a left-handed user, you can swap the two buttons so that you can use the right button as the left button and vice versa. You can also change the size of the on-screen pointer, the speed of the pointer, and so on.

NOTE:

1. The touch pad is pressure sensitive.
2. The presence of a foreign object on the touch pad may cause the cursor to move erratically.
3. Use an optical cleaning kit such as a bower brush to remove any such objects.

Using the Touchscreen



CAUTION:

Do not use a sharp object such as a ballpoint pen or pencil on the touchscreen. Doing so may damage the touchscreen surface.

NOTE:

1. The touchscreen is pressure sensitive. The presence of a foreign object on the touchscreen may cause the cursor to move erratically.
2. Use an optical cleaning kit such as a bower brush to remove any such objects.

The touchscreen is a touch-sensitive device that allows you to communicate with the computer by controlling the location of the pointer on the screen and making selection.

The touchscreen allows you to use the computer without a mouse or touchpad.

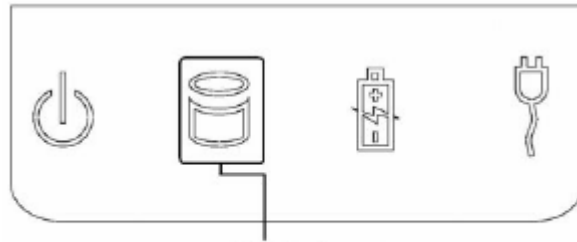
Here are some common terms that you should know when using the touchscreen:

Term	Action
Click/Point	Tap gently on the touchscreen.
Double-click	Tap twice on the touchscreen rapidly.
Drag and drop	Press lightly on the touchscreen and move your finger until you reach your destination (drag). Finally, release your finger (drop) when you finish dragging your selection to the destination. The object will drop into the new location.

Using the Hard Disk Drive

Your computer comes with a 2.5-inch Serial-ATA hard disk drive. A hard disk drive is a storage device where your operating system and application programs are stored.

This type of drive embodies the latest in fast, reliable mass storage by integrating all the control circuitry necessary for operation directly onto the drive itself. This allows the drive manufacturer to optimize the performance of the drive.



**Indicates HDD Heater on or
HDD in use**

The system comes with a built-in heater that automatically turns on during low temperature operation. The HDD-heater-on indicator blinks red when the heater is on. In low temperature environments, you should operate the system using AC power to conserve battery power.



CAUTION:

1. Make regular backups of your data files from the hard disk drive to CDs or other storage media.
2. Never try to remove or install the hard disk drive while the computer is powered on. Doing so can result in loss of data, and can damage the computer and the hard disk drive's sensitive circuitry.
3. Never turn off or reset the computer while the hard disk drive in-use indicator is on.

Using the Optical Disk Drive

Your computer (model-dependent) comes with an optical disk drive located on the right side of the computer in the configurable media bay.

Depending on the model of your computer, the drive may be one of the following:

- **DVD drive** – reads DVD (Digital Versatile Disc) discs in addition to CDs, audio CDs, CD-R, and CD-RW discs.
- **CD-RW/DVD Combo drive** – works both as a DVD drive and CD-RW drive.
- **DVD-RW Dual drive** – aside from working as a Combo drive, it can also write to DVD±RW (+R DL), DVD-R, DVD+R, DVD-RAM, CD-R & CDRW discs.

NOTE:

1. If you are using the optical disk drive for more than half an hour (e.g. playing a DVD title), it is recommended to use the AC power source instead of the battery.
2. If not, the battery may run out of power before you can complete your multimedia task.



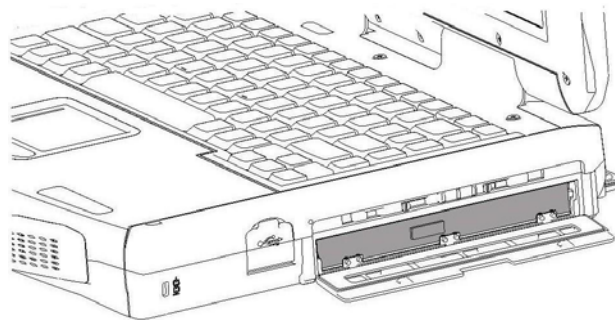
CAUTION:

1. When inserting a disc, do not use force.
2. Make sure the disc is correctly inserted into the tray, before closing the tray.
3. Do not leave the optical disk tray open unnecessarily. Also, avoid touching the lens in the tray with your hand. If the lens becomes dirty, the drive may malfunction.
4. Do not wipe the lens using materials with rough surface (such as paper towel). Instead, use a cotton swab to wipe the lens gently.
5. FDA regulations require the following statement for all laser-based devices.
6. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
7. The optical disk drive is classified as a Class 1 laser product.
This label is located on the optical disk drive.

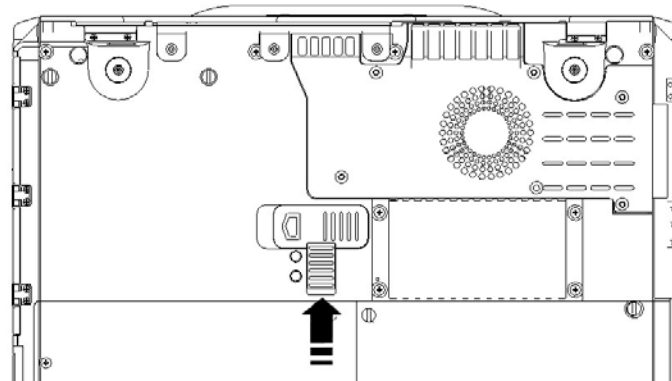
**CLASS 1 LASER PRODUCT
LASER KLASSE 1**

To install the Optical Disk Drive/2nd HDD/2nd Battery:

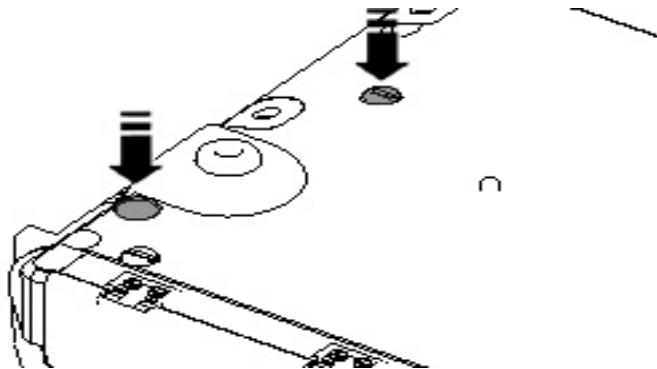
1. Insert the optical disk drive/2nd HDD/2nd Battery into the configurable media bay located on the right side of the computer.



2. Slide the multipurpose bay lock/unlock switch to the lock position to secure the optical disk drive/2nd HDD/2nd Battery in place.



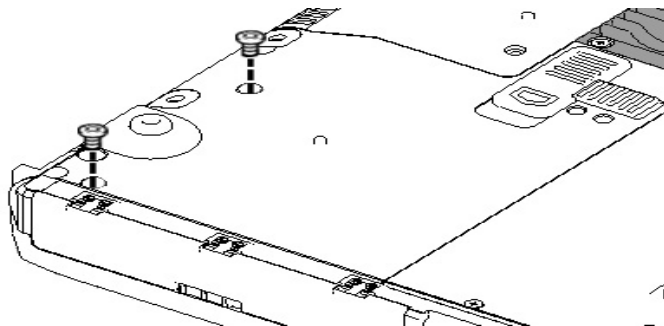
3. Tighten the positioning screws to lock the optical disk drive/2nd HDD/2nd Battery in place.



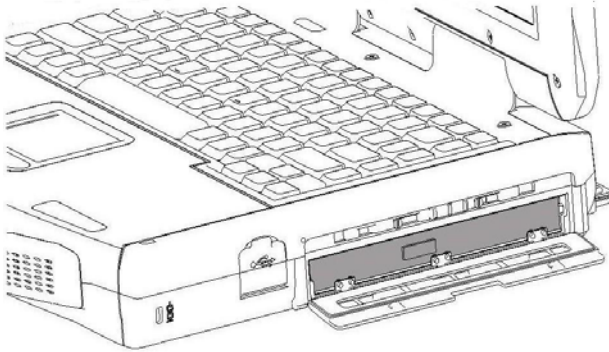
Removing the Optical Disk Drive/2nd HDD/2nd Battery

To remove the optical disk drive/2nd HDD/2nd Battery:

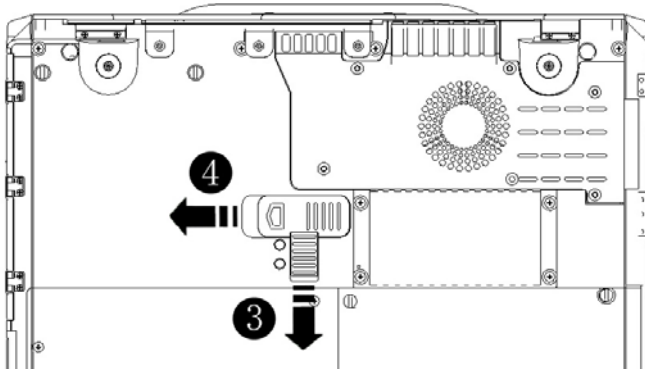
1. Remove the two positioning screws from the base.



2. Open the door of the configurable media bay on the right side of the computer.



3. Push to release the lock/unlock switch.



4. Push the Eject icon switch to remove the optical disk drive/2nd HDD/2nd Battery.

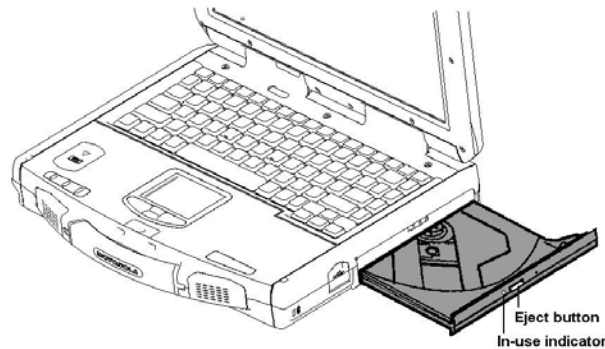
Warning:

1. Without the two positioning screws locked on the base, the unit will no longer be waterproof and will be more susceptible to damage if dropped.
2. The optical disk drive (or any other secondary kit i.e. 2nd HDD/2nd Battery) needs to be replaced back in the unit for positioning screws to lock on.

Inserting and Removing a Disc

Follow this procedure to insert or remove a disc.

1. Turn on the computer.
2. Press the eject button and the optical disk drive tray will slide out partially. Carefully pull it out until fully extended.
3. To insert a disc, place the disc in the empty tray with its label facing up. Gently press the center of the disc until it clicks into place.



To remove a disc, hold the disc by its outer edge and lift it up from the tray.

4. Gently push the tray back into the drive.

NOTE:

In the unlikely event that you are unable to release the optical disk drive tray by pressing the eject button, you can manually release the optical media. (See “Optical Disk Drive Problems” in Chapter 8.)

Using the Video Features

The video subsystem of your computer features:

13.3-inch Display:

- 13.3-inch TFT (Thin-Film Transistor) color LCD display with 1280×800 WXGA (Wide extend Graphics Array) resolution.
- 128 MB discrete video memory.
- Simultaneous display on LCD and external monitor, which is useful when you have a presentation as you can control the screen from your computer and face the audience at the same time.
- Dual view capability that allows you to extend your desktop to another display device so you have more desktop space to work on.

- Power Management.
- Polarizer touchscreen function.

NOTE:

System enters Standby/Hibernation mode when the LCD is closed. If you want to use the computer with the LCD closed, set Do Nothing to the “When I close the lid of my portable computer” option in the Power Options Properties. Thus, the computer will not enter Standby or Hibernation mode when the LCD is closed.

Configuring the Display Modes

Your computer has been set to a default resolution and number of colors before shipment. You can view and change display settings through your operating system. See your operating system documentation or online help for specific information.

For displaying in higher resolutions, you can connect an external monitor that supports higher resolutions. (See “Connecting an External Monitor” in Chapter 4 for more information.)

The following table lists the display modes supported by your computer.

Display Mode		LCD Only	CRT Only	Simultaneous Display
Resolution	Colors			
800x600	16-bit	✓	✓	✓
	32-bit	✓	✓	✓
1024x600	16-bit	✓	✓	✓
	32-bit	✓	✓	✓
1024x768	16-bit	✓	✓	✓
	32-bit	✓	✓	✓
1280x720	16-bit	✓	✓	✓
	32-bit	✓	✓	✓
1280x768	16-bit	✓	✓	✓
	32-bit	✓	✓	✓
1280x800	16-bit	✓	✓	✓
	32-bit	✓	✓	✓

NOTE:

1. 16-bit = High Color or 65,536 (64 K) colors; 32-bit = True Color 16,770,000 (16 M) colors.
2. When using an external monitor only, the resolution depends on the resolution supported by the external monitor.

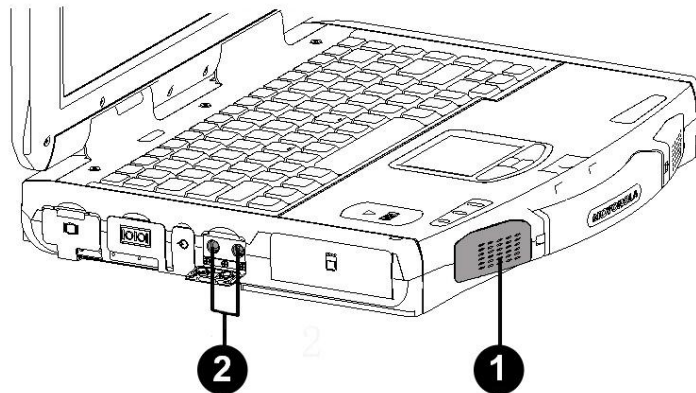
Using the Audio Features

NOTE:

1. To take advantage of the enhanced audio capabilities, the audio driver supplied with your computer must be installed (see chapter 6 for details).
2. If you experience interference while recording, try lowering the microphone recording volume.

The audio subsystem of your computer features:

- Recording analog audio
- Digital audio and analog mixing functions and playing sound on your computer
- Microsoft Windows Sound System support
- A set of built-in speakers (❶)
- External audio connectors (❷)



Modes of playing and recording sound vary with the operating system used. See your operating system documentation or online help for specific information.

Connecting Audio Devices

For higher audio quality, you can send or receive sound through external audio devices.

- **Microphone Connector** (🎤) can be connected to an external microphone for recording voice or sound.
- **Audio Output Connector** (🔊) can be connected to the line-in connector of powered speakers with built-in amplifiers, headphones, or earphone set. The audio jack also supports S/PDIF optical standard and capable of interfacing a mini-toslink for optical S/PDIF.

NOTE:

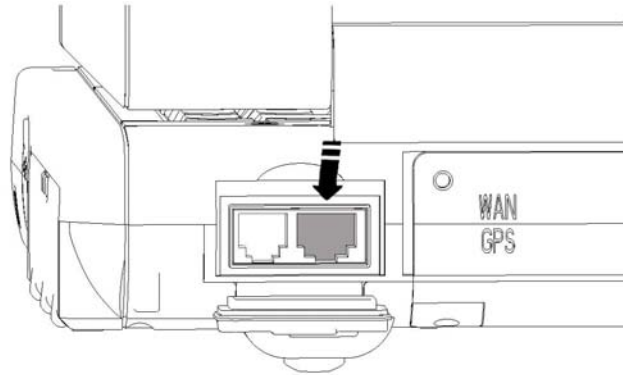
When using external speakers/headphones, the internal speakers will be disabled.

Using the Communication Features

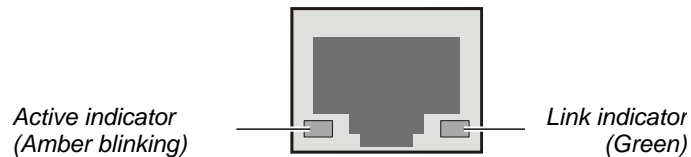
Using the LAN

The internal 10/100/1000 Base-T Ethernet LAN (Local Area Network) module allows you to connect your computer to a network. It supports data transfer rate up to 1000 Mbps. When the ML910™ RUGGED NOTEBOOK is used in a Vehicle Docking Station or Office Port Replicator the data rate transfer will only be 10/100 Mbps.

To connect the network cable to the LAN module, plug in one end of the LAN cable to the RJ-45 connector on the computer and the other end to the network hub.

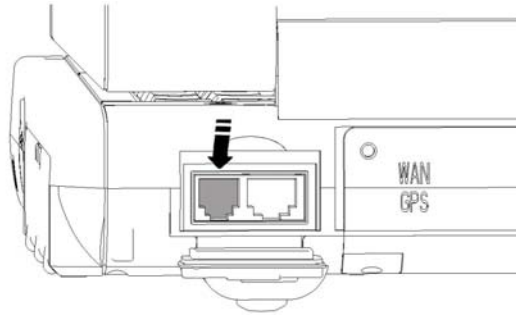


- | | |
|------------------|---|
| Link Indicator | Glows green when the system has an available connection to LAN. |
| Active Indicator | Blinks amber when the system is accessing the LAN. |



Using the Wire line Modem

The internal 56K fax/data modem allows you to use the telephone line to communicate with others by fax, email, or connect to an online service or web browser. Connect one end of the RJ-11 telephone cable to the modem port and the other end to the phone line.



Using the Wireless LAN

Your computer may have an internal PCIe (PCI Express) Mini Card network adapter (WLAN) pre-installed by the computer manufacturer. This card allows you to access corporate networks or the Internet in a wireless environment.


Features	Module 3945ABG for ML910™ RUGGED NOTEBOOK
Band	Indicates the wireless band of the current connection
Supported Data rates	Rates at which the wireless adapter can send and receive data. Displays the speed in Mbps or the frequency being used. <ul style="list-style-type: none">• 802.11a - 6, 9, 12, 18, 24, 36, 48 and 54mbps• 802.11b- 1, 2, 5.5 and 11• 802.11g- 1, 2, 5.5 and 11
Radio Frequency	<ul style="list-style-type: none">• Display the frequency of the current wireless connection.• 2.4 GHz• 5 GHz
Channel Number	Displays the transmit and receive channel.
Network Authentication	WPA-Personal, WPA2-Personal, WPA-Enterprise, WPA2-Enterprise.
CCX Version	Version of the Cisco Compatible Extensions on this wireless connection.
CCX TPC	Cisco Compatible Extensions Power Levels.
CCX Power Levels	1.0, 5.0, 20.0, 31.6, 50.1 mW
Access Point MAC Address	The Media Access Control (MAC) address for the associated access point.
Mandatory Access Point	Display None, if not enabled. If enabled, from the access point MAC address is displayed. This option directs the wireless adapter to connect to an access point that uses a specific MAC address(48bit 12 hexadecimal digits, for example, 00:06:25:0E:9D:84)



CAUTION:

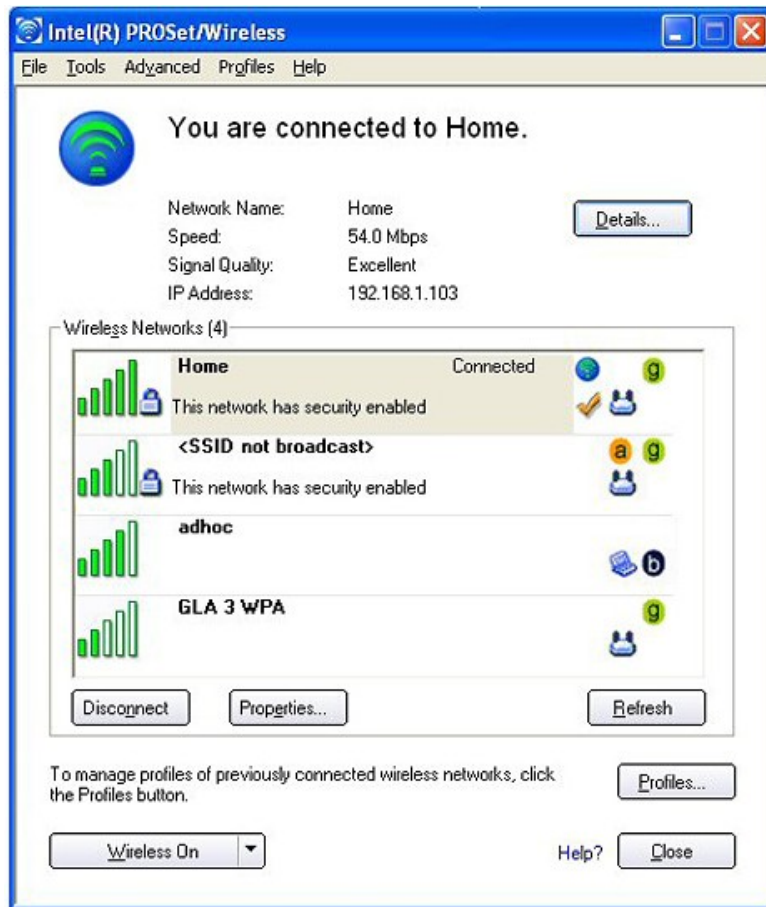
The FAA (Federal Aviation Agency) has deemed it unsafe to operate wireless devices in aircraft as this may interfere with flight safety. Remember to turn off wireless LAN when using your computer in the airplane.

Connecting to a Wireless Network

1. Double-click the Intel PROSet/Wireless Software icon  located on the Windows system tray. The following window appears on screen:

NOTE:

If the "Intel(R) PRO/Wireless Network connection is disabled, press Fn+F7 to enable it.



2. Select a wireless network to connect to, and then click **Connect**.
3. You may be asked to enter a key or pass phrase if a network security setting is enabled. Refer to your Windows online help for more information on setting a wireless network connection.

Using the PRM240 Wireless Modem (Optional)

The PRM240 is a radio modem intended for use on Motorola's Private DataTAC data communications network.

It is primarily designed to be integrated into the customer's equipment as an OEM modem. There are two versions available—an 800MHz version (A band) and a 900 MHz version (B band).

The modem interfaces to the equipment's controller by using the data interface port. The protocol supported over this link is a Native Control Language (NCL).

Although the modem has embedded software, it also has the application software that must be installed separately in order for the device to which the modem is connected to communicate with it.

NOTE:

Please refer to your PRM240 user manual for more information on the installation and configuration of the modem.

The PRM240 modem has the following features:

- Serial communications interference port (TTL level)
- Four configurable digital Input/output lines for external control/monitoring
- Software configurable RF calibration adjustments to suit specific networks
- High sensitivity reception
- Small footprint and low profile design
- Low-voltage and low standby current consumption for battery based products
 - Auto-wake up of host on incoming messages
- Roaming capabilities as used in DataTAC network
- Easy to install, service and update

Using GPS (Optional)

Navigation and positioning are crucial to many activities and yet the process has always been quite cumbersome. With GPS technology, you can now figure out where you are and where you are going.

Global Positioning System (GPS) is a worldwide radio-navigation system formed from a constellation of 24 satellites and their ground stations. GPS uses these "man-made stars" as reference points to calculate positions accurate to a matter of meters. In fact, with advanced forms of GPS you can make measurements to better than a centimeter! In a sense, it is like giving every square meter on the planet a unique address.

Five broad categories of GPS application:

- Location – determining a basic position
- Navigation – getting from one location to another
- Tracking – monitoring the movement of people and things
- Mapping – creating maps of the world
- Timing – bringing precise timing to the world

NOTE:

1. The basis of GPS is "triangulation" from satellites.
2. To "triangulate," a GPS receiver measures distance using the travel time of radio signals.
3. To measure travel time, GPS needs very accurate timing.
4. Along with distance, you need to know exactly where the satellites are in space. High orbits and careful monitoring.
5. Finally you must correct for any delays the signal experiences as it travels through the atmosphere."

Using the MESH Modem (Optional)

Motorola's MESH networking technology enables users to wirelessly access critical broadband applications seamlessly—anytime and anywhere. Whether utilizing pre-deployed infrastructure or an instant, adhoc broadband network formed with other users, Motorola's MESH networking technology delivers real-time data to detect, prevent and respond. Key features of MESH include:

- Advanced Encryption Standard (AES) Support for Wi-Fi Clients.
- Layer 2 Multicast Support.
- Network Time Protocol (NTP) Support.
- Differentiated Services using IP quality of Service (QoS) Support.
- Over-the-Air Software upgrade Support.
- MAC Access Control lists.
- Web (HTTP) based management interface.
- SNMP agent for remote management.
- Firmware Upgrades via TFTP.

The following MESH modems are supported:

– WMC6300, WMC7300 & WDE1000

NOTE:

1. Please refer to your MESH modem user manual for more information on installation and configuration of the modem.
2. Refer to Page x of this manual for external antenna placement.



CAUTION:

MESH cards are EXTERNAL to the computer and when used they are not water/humidity/dust proof since the rubber door is open.

Using the Bluetooth

Your computer is equipped with a Bluetooth Class 2 device that is compliant with Bluetooth specification V2.0 to ensure interoperability between other electronic devices supporting Bluetooth technology, check with the manufacturers of those electronic devices to determine their compatibility with your computer.

NOTE:

1. There may be restrictions on using Bluetooth technology in some locations. Check with your local authorities or service provider.
2. Features using Bluetooth technology, or allowing such features to run in the background increase the demand on battery power and reduces the battery life.

Bluetooth technology enables wireless connections between electronic devices. A Bluetooth connection can be used to send files or to connect wirelessly to compatible devices such as cellular phones and PDAs using Bluetooth technology.

Since devices using Bluetooth technology communicate using radio waves, your computer and the other devices do not need to be in direct line-of-sight. Your computer and the other device only need to be within a maximum of 10 meters of each other, although the connection can be subject to interference from obstructions such as walls or from other electronic devices.

Embedded EVDO REV. A or HSDPA Modem (Optional)

Your ML910™ RUGGED NOTEBOOK may be equipped with an embedded EVDO REV. A or HSDPA carrier modem to provide data connectivity via a cellular service provider. Embedding the carrier modem card ensures connectivity without exposing components to outside environmental hazards such as water, dust, sand, humidity, and the long-term affects of extreme temperatures.

The ML910™ RUGGED NOTEBOOK carrier modem solution also includes embedded antennas to provide consistent data service in even the most hazardous conditions. An external antenna pass-through option is also available for rural areas with little connectivity or those with significant interference. Pass-through allows the user maximum coverage in any environment.

Please refer to your carrier's connection service software to verify activation, connectivity and system settings. The ML910™ RUGGED NOTEBOOK integrates data only cellular radio modules that use radio signals and cellular networks which cannot be guaranteed to connect in all conditions. Therefore, you should never rely solely upon any wireless device for essential communications.

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Managing Power

Your computer operates either on external AC power or on internal battery power.

This chapter tells you how to manage power effectively. In order to keep the optimal performance of battery, it is important to use the battery properly.

The topics in this chapter include:

- What is an AC adapter.
- How to charge the battery pack.
- When and how to initialize the battery pack.
- How to check the battery level.
- How to replace the battery pack.
- What happens when the battery is low and what actions to take.
- What is Power Management.
- How to save power.

AC Adapter



CAUTION:

1. The AC adapter is designed for use with your computer only. Connecting the AC adapter to another device can damage the adapter.
2. The AC power cord supplied with your computer is for use in the country where you purchased your computer. If you plan to go overseas with the computer, consult your dealer for the appropriate power cord.
3. When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the computer. A reverse procedure may damage the AC adapter or computer.
4. When unplugging the connector, always hold the plug head. Never pull on the cord.

When connected to AC power, the AC adapter converts from AC (Alternating Current) to DC (Direct Current) power for use by your computer and also charges the battery pack. The AC adapter operates on any voltage in the range of 100 ~ 240 V AC.

Battery Pack

The battery pack is an internal power source for the computer and is rechargeable using the AC adapter.

The operating time of a fully charged battery pack depends on how you use the computer. If your applications often access peripherals, you will experience a shorter operating time. In low or high temperature environments, you are recommended to operate the computer using the AC power.

NOTE:

Care and maintenance information for the battery is provided in the “Battery Pack Guidelines” section in Chapter 7.


Charging the Battery Pack

NOTE:

1. Charging will not start if the battery’s temperature is below 0°C (32 °F) or above 45 °C (113 °F).
2. The thermal protection of battery pack is 60 °C (140°F) for the discharge mode. In any case, once the temperature of battery pack reaches 60°C (140°F), the battery pack will shut off the output immediately, this means the battery will stop discharging. If this happens, the computer must be connected to external power before attempting to restart.
3. The battery will not discharge if the temperature is lower than –20°C (–4°F) or higher than 60°C (140°F).
4. During charging, it is not recommended to disconnect the AC adapter before the battery has been fully charged; otherwise you will not get a fully charged battery.
5. The absolute highest temperature for the battery pack is 85°C (185°F), this temperature will result in irreversible damage and permanent disabling of the pack.
6. Permanent damage can occur at temperatures above 60°C (140°F) and should be avoided if possible.

**CAUTION:**

1. Batteries in ML910™ RUGGED NOTEBOOK are allowed to discharge when the battery temperature is from -20°C (-4°F) to 60°C (140°F) and allowed to be charged when its temperature is ranging from 0°C (32°F) to 45°C (113°F).
2. These batteries are not allowed to operate outside of this range. When the ML910™ RUGGED NOTEBOOK is operating at extreme temperature and the battery is out of the operating range, an external power supplies is required to be connected to allow continued operation of the ML910™ RUGGED NOTEBOOK unit.

To charge the battery pack, connect the AC adapter to the computer and the electrical outlet. The “Battery status indicator ()” will light amber when battery is charging, and green when the battery is fully charged . The “Battery low” indicator will blink red when battery capacity is below 10 percent.

It takes approximately 180 minutes (3 hours) to charge the battery pack when the computer is off and 240 minutes (4 hours) to fully charge the battery pack when the computer is on.

**CAUTION:**

After the battery has been fully recharged, do not immediately disconnect and reconnect the AC adapter to charge it again. Doing so may reduce the life of the battery.

NOTE:

1. The battery level may automatically lessen due to the self-discharge process (0.21% per day), even after the battery pack has been fully charged to 100%. This will happen whether the battery pack is installed in the computer or not.
2. The discharge will be significantly higher if the pack is stored in the computer with no external power connected.

Initializing the Battery Pack

You need to initialize the new battery pack before using it for the first time or when the actual operating time of a battery pack is less than expected.



Initializing is the process of fully charging the pack and may take several hours.

1. Make sure the computer is turned off. Connect the AC adapter to fully charge the battery pack.
2. After the battery pack is fully charged, turn on the computer.

Checking the Battery Level

NOTE:

The battery level indication is an estimated result. The actual operating time can be different from the estimated time, depending on how you are using the computer.

You can check the approximate battery level using the battery meter function of the operating system. To read the battery level in Windows, click the  icon on the taskbar. (Click the  icon if the computer is using AC power.)

Replacing the Battery Pack



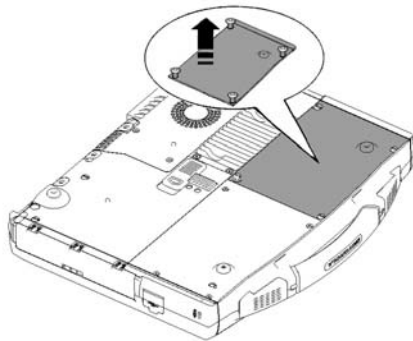
CAUTION:

1. There is danger of damage if the battery is incorrectly replaced.
2. Replace the battery only with the computer manufacturer's optional battery packs.
3. Discard used batteries according to the dealer's instructions.
4. Do not attempt to disassemble the battery pack.

If you often rely on battery power for long periods of time while traveling, you may consider the purchase of an additional battery pack from your dealer and keep it with you in a fully charged state as a backup.


To replace the battery pack, follow these steps:

1. Make sure the computer is not on or connected to the AC power.
2. Loosen the four screws and lift the battery pack compartment cover to take it off the computer.



3. Pull on the ribbon and remove the battery pack from the computer.
4. Insert the new battery pack into the compartment.
5. Replace the compartment cover and secure the four screws.

Battery Low Signals and Actions

Battery Low occurs when the battery has approximately 10% (Windows default setting) of its charge remaining. The computer gives warning beeps or messages and the Battery Power Indicator () blinks red to alert you to take actions.

NOTE:

You can set up your threshold and signals of Battery Low under Windows.

Immediately save your data upon Battery Low. The remaining operating time depends on how you are using the computer. If you are using the audio subsystem, hard drive or DVD/Combo/DVD Dual drives, the battery may run out very quickly.

Always respond to Battery Low by placing your computer in Standby or Hibernation mode, turning off the computer, or connecting the AC adapter.

If you do not take any action, the computer will automatically hibernate and turn off.



CAUTION:

If you fail to save your data when the battery completely runs out of charge, then your unsaved data will be lost.

Power Management

Your computer supports ACPI (Advanced Configuration and Power Interface) for power management. The power management feature allows you to reduce the power consumption for energy saving.

With an ACPI-compliant operating system such as Windows XP, power supply to different computer components is controlled on an as-needed basis. This allows maximum power conservation and performance at the same time.

In general, Windows' power management works in this way:

What...	When...
Power to the hard disk is turned off	When the hard disk has been idle for a set period.
Power to the display is turned off	When the display has been idle for a set period.
The computer enters Standby mode. The hard disk and display are turned off and the entire system consumes less power.	When the entire system has been idle for a set period.
	When you press Fn+F10 . *
	When you close the cover. *
The computer enters Hibernation mode. (See the next subsection for more information.)	When you press the power button. *
	When you press Fn+F10 . *
	When you close the cover. *

* depends on your Windows settings.

For detailed information on power management, see Windows' Help. Power management settings should not be completely disabled. Generally, users will not see significant benefit by setting hard drive shutdown times of greater than a few minutes. When ML910™ Rugged Notebook is intended for in vehicle use it is recommended that hard drive power down be set at 1 minute to prevent premature failure of hard-drive.



CAUTION:

Do not disable power management if system will be used in extreme temperatures or high vibration environments (e.g.: vehicles).

Hibernation

When you use the hibernation feature, you do not have to close the applications and documents that are running on the computer. The computer stores the state of your computer to a file on the hard disk before shutting down. The next time you turn on your computer, you return to exactly where you left off.

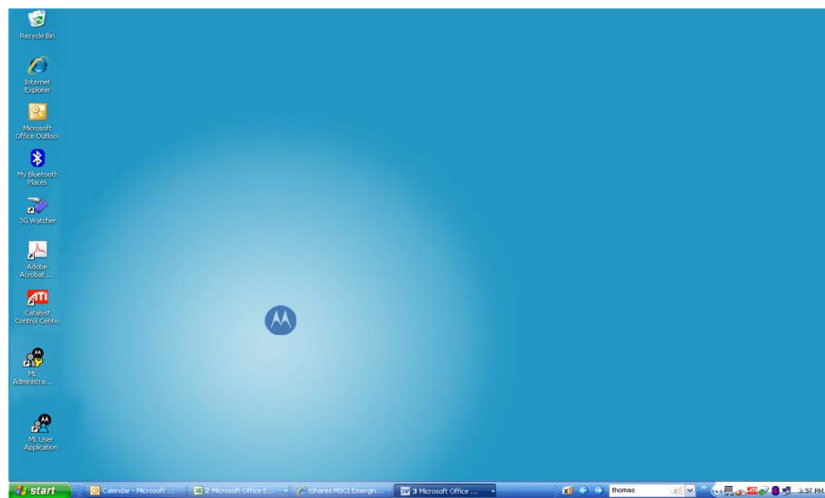
ATI PowerPlay™ Management

PowerPlay™ manages the power requirements of your graphics settings for higher performance or longer battery life. Use PowerPlay™ to balance performance and power consumption.

When you bought the notebook from Motorola or Motorola's Agencies, PowerPlay™ is the fixed default value by driver of the graphics card which can be adjusted under the "Enable PowerPlay™" procedure.

Access to PowerPlay™

1. Start notebook and click on the "ATI Catalyst Control Center" symbol.



2. You will see the following screen once you've accessed the "ATI Catalyst Control Center" program.



3. Click the “Next” key to proceed to the next step for system access.

NOTE:

This following will only happened the first time you access to Catalyst Control Center only,



Functions of PowerPlay™

Enabling PowerPlay™

You can adjust the AC mode and battery mode to reduce the power consumption under the Enable Power Play Function

1. From the Graphics Settings tree, click PowerPlay™.
2. Click Enable PowerPlay™
3. You will see the following screen :



Please check the function of “Enable POWERPLAY” when you access the PowerPlay™ program.

Select your preferred settings depending on power source

The default power settings can be changed to meet your performance to power requirements.

1. From the Graphics Setting tree, click PowerPlay™.
2. Click and drag the slider next to the relevant power source to the desired setting.

Set low battery level

PowerPlay™ can automatically change to low power consumption settings.

NOTE:

This option is not available on system running Windows® Vista.

1. From the Graphics Settings tree, click PowerPlay™.
2. Click the up or down buttons next to Low Battery settings to a desired battery power level percentage.
3. Optionally, enter a value in the power percentage value box.

Power-Saving Tips

In addition to your computer's automatic power management, you can do your part to maximize the battery's operating time by following these suggestions.

1. Do not disable Power Management.
2. Decrease the LCD brightness to the lowest comfortable level.
3. Disable the serial port if no device is connected to this port. (See "Advanced Settings" in Chapter 5.)
4. If you work with an application that uses the serial port or features wireless connectivity (LAN/WLAN/modem/GPS/Bluetooth), exit the application when you finish using it.
5. Turn off the computer when you are not using it.

Expanding Your Computer

You can expand the capabilities of your computer by connecting other peripheral devices. When using a device, be sure to read the instructions accompanying the device together with the relevant section in this chapter.

This chapter gives guidelines on installing and using these devices:

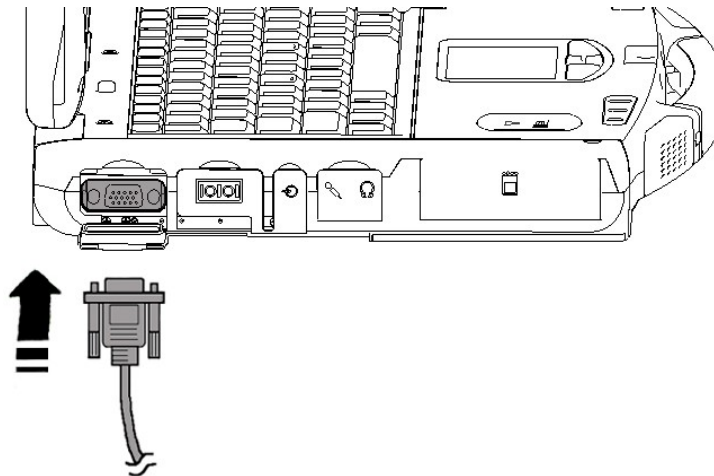
- External monitor.
- USB device.
- Serial device.
- Video source.
- System Memory Upgrade.

Connecting an External Monitor

If you want the benefits of a larger display screen with higher resolution, you can connect an external monitor that supports VGA interface to your computer.

Follow this procedure to connect an external monitor:

1. Make sure that the computer is not turned on.
2. Plug the monitor's signal connector to the computer's VGA port.



3. Plug one end of the monitor's power cord into the power socket on the monitor and the other end to an electrical outlet.
4. To use the monitor, switch on the monitor before turning on the computer.
5. The monitor should respond by default. If not, you can switch the display to the monitor or to both (simultaneous display), or to multi-display by pressing Fn+F9. In Windows, you can also change the display through the settings in Display Properties.
6. You can change display settings through your operating system. See your operating system documentation or online help for specific information.



CAUTION:

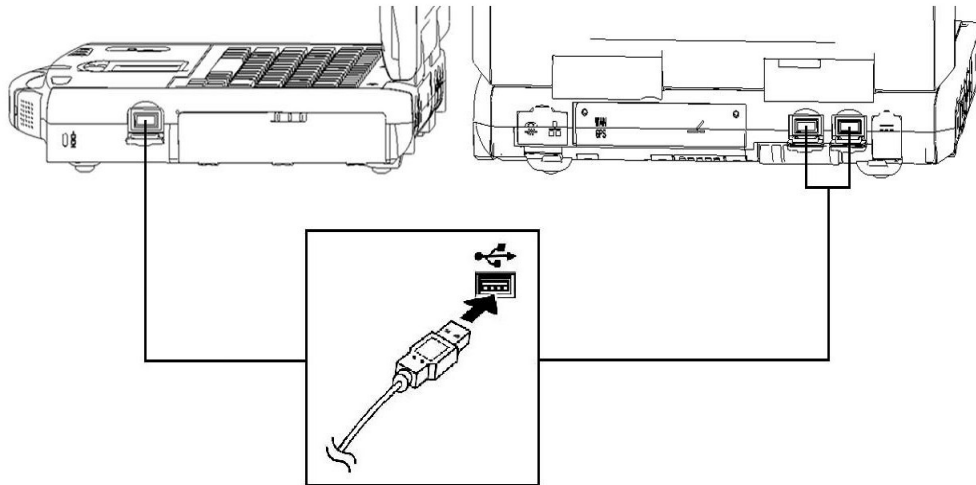
Do not disconnect the external monitor while the computer is in Standby mode or Hibernation mode. If no external monitor is connected when the computer resumes, the LCD remains blank and the output is not displayed.

Connecting a USB Device

Your computer has three USB ports that support transfer rates of up to 12 Mbps for USB 1.1 devices and 480 Mbps for USB 2.0 devices, such as digital camera, scanner, printer, modem, and mouse.

USB is specified to be an industry standard extension to the PC architecture. It supports “Plug-and-Play” technology so you can install and remove USB devices without turning off the computer. With its multiple connection capability, up to 127 devices can be connected in a daisy-chain configuration. In addition, you can use a USB hub that converts a single USB connector into multiple ports where USB devices can be connected.

To connect a USB device, simply plug the device cable into one of the **USB ports** with the USB “converging arrows” symbol facing up.

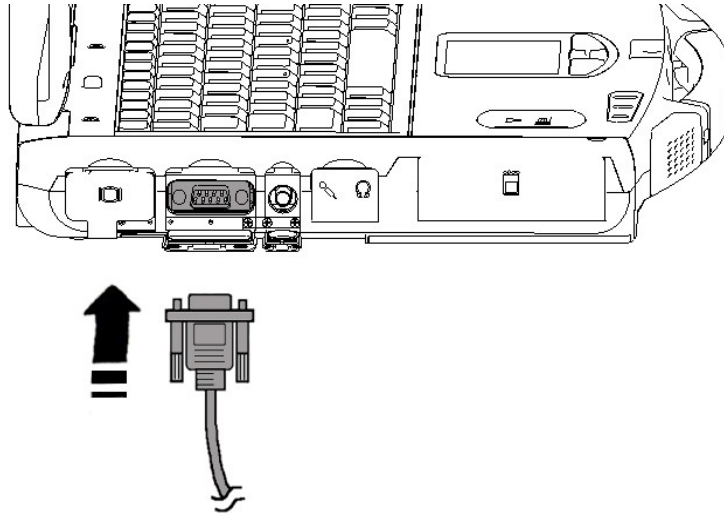


Connecting a Serial Device

Your computer has a serial port for connecting a serial device such as an external modem.

Follow this procedure to connect a serial device:

1. Plug the device cable to the serial port on the left side of the computer.
2. Turn on the computer.



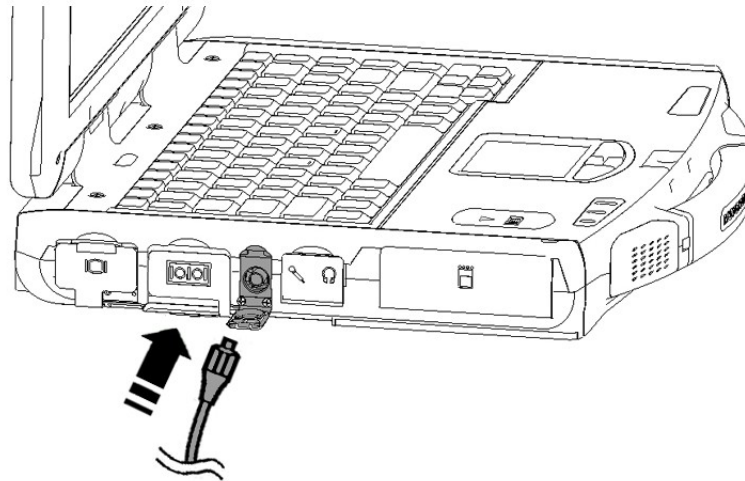
NOTE:

Portable modems that derive power through the **serial port** cannot be used with the computer. Instead, use a modem that is powered by its own internal battery or external AC power.

Connecting a Video Capture Device

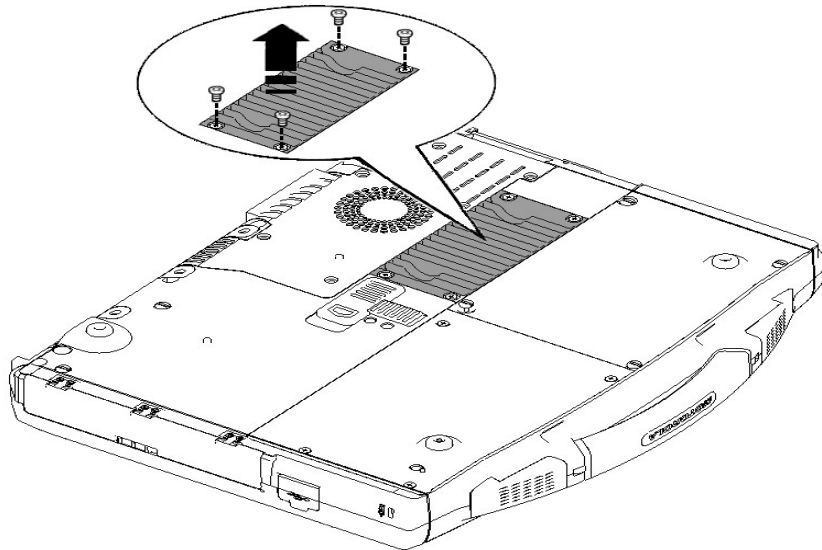
Your computer has a video capture port for connecting a video source such as high-quality CCD, as well as consumer electronic equipment such as DVCAM and VCR.

To connect a video capture device, simply plug the device cable into the video capture port of the computer.



System Memory Upgrade

You can upgrade your computer by changing system memory to a maximum of 2 GB on the two 200-pin DDR2 SO-DIMM slots. However, to avoid damage during the installation procedure, please ask your dealer for help.



BIOS Setup Utility and ML User Application (MLUA)

BIOS Setup Utility is a program for configuring the BIOS (Basic Input/Output System) settings of the computer.

BIOS is a layer of software, called firmware, that translates instructions from other layers of software into instructions that the computer hardware can understand. The BIOS settings are needed by your computer to identify the types of installed devices and establish special features.

The ML User Application or MLUA is designed for users to configure the parameters of various functions in the notebook. By using these configuration parameters, you can change the default configuration that automatically loads when you turn on the computer.

ML User Application is automatically launched every time you boot your notebook into Windows Operating System, this can be indicated by the ML User Application icon on the taskbar. Double-click on the ML User Application icon will bring up the application window.

Every time you start the ML User Application, the current configuration parameters saved in Embedded Controller is loaded and displayed in the ML User Application window.

This chapter tells you how to use the BIOS Setup Utility and provide you with some of the basic information related to the MLUA