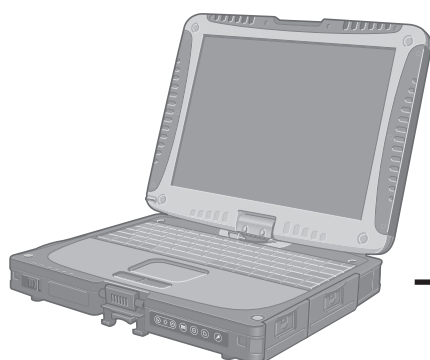




Panasonic®

Personal Computer

OPERATING INSTRUCTIONS

Model No. **CF-18 Series**

TOUGHBOOK

XP

Contents

Getting Started

Read Me First	3
Names and Functions of Parts	8
First-time Operation	12

Reference Manual

- Read Me First
- LED Indicators
- Key Combinations

Operation

Starting Up/Shutting Down	17
Touch Pad (Basic Operation)	20
Touchscreen (Basic Operation)	21
Operating in Tablet Mode	22
Reference Manual	24
Useful Information	25

Reference Manual

- Tablet Buttons
- Touch Pad
- Touchscreen
- Software keyboard
- Panasonic Hand Writing
- Display Rotation
- Standby/Hibernation Functions
- Security Measures
- Computing on the Road
- Battery Power
- PC Cards
- RAM Module
- Port Replicator
- External Display
- USB Devices
- Modem
- LAN
- Wireless LAN
- Hard Disk Drive
- Setup Utility
- Icon Enlarger

Troubleshooting

List of Error Codes	28
Dealing with Problems (Summary)	29
Reinstalling Software	34

Reference Manual

- Technical Information
- DMI Viewer
- List of Error Codes
- Dealing with Problems (Advanced)

Appendix

LIMITED USE LICENSE AGREEMENT	36
Hard Disk Backup Function	38
Hard Disk Data Erase Utility	42
Specifications	43
LIMITED WARRANTY	45

[Additional Manual]

Reference Manual

This manual can be accessed on your computer. Refer to page 24 on how to access the Reference Manual.

Getting Started

Operation

Troubleshooting

Appendix

Customer's Record

Model No.*	Dealer's Name
Serial No.	
or	
Code No.	Dealer's Address
Date of Purchase	

* For the Model No., insert the 12 digit number (for example, CF-18DHAZXKM) located on the bottom of the computer.

Introduction

Thank you for purchasing the Panasonic computer. Read the operating instructions thoroughly for proper operation of your new computer.

Illustrations and Terminology in this Manual

NOTE:

CAUTION:

Enter :

Fn + **F5** :

[start]-[Run]:

 :

 Reference Manual :

NOTE provides a useful fact or helpful information.

CAUTION indicates a condition that may result in minor or moderate injury.

This illustration means to press the [Enter] key.

This illustration means to press and hold the [Fn] key, then press the [F5] key.

This illustration means to click [start], then to click [Run].

(For some applications, you may need to double-click.)

Where to go for referred information.

This illustration means to refer to the Reference Manual, which is available on your computer. Refer to page 24 on how to access this manual.

- Some of the illustrations in this manual may differ slightly in shape from the actual items in order to make the explanation easier to understand.
- The “CD/DVD drive” is a description about drives, such as DVD-ROM, CD-ROM, CD-R/RW, and DVD-ROM & CD-R/RW drives.
- In this manual, descriptions are given using illustrations not featuring the hand strap for convenience of explanation.
- If the user has logged on without administrator authority, some functions may not be executable, and some screens may be not displayed as shown in this manual. If this happens, log on with the administrator authority to enable these functions.
- Confirm the latest information on optional products in catalogs, etc.
- In this manual, “Microsoft® Windows® XP Professional” is indicated as “Windows” or “Windows XP”.

Copyright

This manual is copyrighted by Matsushita Electric Industrial Co., Ltd. with all rights reserved. No part of this manual may be reproduced in any form without the prior written permission of Matsushita Electric Industrial Co., Ltd.

No patent liability is assumed with respect to the use of the information contained herein.

©2004 Matsushita Electric Industrial Co., Ltd. All Rights Reserved.

Disclaimer

Computer specifications and manuals are subject to change without notice. Matsushita Electric Industrial Co., Ltd. assumes no liability for damage incurred directly or indirectly from errors, omissions or discrepancies between the computer and the manuals.

Trademarks

Microsoft, Windows and the Windows logo are registered trademarks of Microsoft Corporation of the United States and/or other countries.

Intel, Pentium and PROSet are either registered trademarks or trademarks of Intel Corporation.

Adobe® and Acrobat® are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Panasonic is a registered trademark of Matsushita Electric Industrial Co., Ltd.

Names of products, brands, etc., appearing in this manual are trademarks or registered trademarks of their respective owner companies.

Read Me First

For U.S.A.

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 Panasonic Service Center or an experienced radio/TV technician for help.

Warning

To assure continued compliance, use only shielded interface cables when connecting to a computer or peripheral. Also, 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:

- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
- This equipment has been approved for portable operation, and unless otherwise advised in separate supplemental instructions for individual wireless transmitter(s), requires minimum 1.5 cm spacing be provided between antenna(s) and all person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.
- This equipment may use multiple installed transmitters, which may be capable of simultaneous transmission.
- This equipment is provided with PC Card slot that could be used with wireless transmitters, which will be specifically recommended when they become available.
Other third-party wireless transmitters have not been RF exposure evaluated for use with this computer and may not comply with FCC RF exposure requirements.
- This equipment is provided with external antenna connector(s) for connection to optional Car Mount or Port Replicator for mobile external mounted antenna(s). External antenna(s) must be professionally installed and cannot exceed recommended maximum antenna gain as described in individual provided supplement instructions for wireless transmitters. Also, user must maintain minimum 20 cm spacing between external antenna(s) and all person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.

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.

Responsible Party: Matsushita Electric Corporation of America
One Panasonic Way
Secaucus, NJ 07094
Tel No: 1-800-LAPTOP-5 (1-800-527-8675)

FCC Regulation Notice for modem

This equipment contains a FCC approved modem.

Manufacturer of modem: AMBIT Microsystems Corporation
Model No. T60M283.** (** = numbers or alphabet letters)

Tested To Comply With FCC Standards FOR HOME OR OFFICE USE

1. This equipment complies with CFR47 Part 68 rules. On the computer is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If required, this information must be provided to the telephone company.
2. An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68 compliant. See Installation Instructions for details.
3. The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all area, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.
4. If your telephone equipment cause harm to the telephone network, the telephone company will notify you in advice that temporary discontinuance of service may be required. But if advice notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.
5. The telephone company may take changes in it's facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.
6. If trouble is experienced with this equipment, for repair or warranty information, please contact Matsushita Electric Corporation of America at DIAL TOLL FREE 1-800-LAPTOP5 (1-800-527-8675). If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.
7. There are no user serviceable parts contained in this equipment.
8. This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.
9. The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entry, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. In order to program this information into your fax software, you should refer to the manual of the Fax software being used.
10. According to the FCC's electrical safety advisory, we recommend that you may install an AC surge arrester in the AC outlet to which this equipment is connected. Telephone companies report that electrical surges, typically lightning transients, are very destructive to customer terminal equipment connected to AC power sources and that this is a major nationwide problem.

"Caution: To reduce the risk of fire, use only No.26 AWG or larger telecommunication line cord."

"ATTENTION: Pour réduire le risque d'incendie, utiliser uniquement des conducteurs de télécommunications 26 AWG ou de section supérieure."

Read Me First

Notice for the products using LCD

This product uses one or more fluorescent lamps containing a small amount of mercury. It also contains lead in some components. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information please contact your local authorities, or the Electronics Industries Alliance: <<http://www.eiae.org/>>

UL1604-conforming model. (The model which has description of “UL1604” in the bottom of the computer.)

- THIS EQUIPMENT IS SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C AND D OR NON-HAZARDOUS LOCATION ONLY.
- WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.
- When connecting and using a device manufactured by a third party, enquire to the manufacturer as to whether the device suits CLASS I, DIVISION 2.

For Canada

Industry Canada (IC) Notice for modem

This equipment contains an Industry Canada approved modem unit. The Industry Canada label is affixed on the modem unit.

EQUIPMENT ATTACHMENT LIMITATIONS

“NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user’s satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas. Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.”

“NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.”

REN: See bottom of the computer

Industry Canada

This product complies with RSS210 Industry Canada.

Operation is subject to the following two conditions;

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

RESTRICTIONS CONCERNANT LE RACCORDEMENT DE MATÉRIEL

“AVIS: L’étiquette d’Industrie Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme aux normes de protection, d’exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n’assure toutefois pas que le matériel fonctionnera à la satisfaction de l’utilisateur.

Avant d’installer ce matériel, l’utilisateur doit s’assurer qu’il est permis de le raccorder aux installations de l’entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L’abonné ne doit pas oublier qu’il est possible que la conformité aux conditions énoncées ci-dessus n’empêche pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L’entreprise de télécommunications peut demander à l’utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l’utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l’utilisateur doit s’assurer que tous les fils de mise à la terre de la source d’énergie électrique, des lignes téléphoniques et des canalisations d’eau métalliques, s’il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales. Avertissement: L’utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d’inspection des installations électriques, ou à un électricien, selon le cas.”

“AVIS: L’indice d’équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface. La terminaison d’une interface téléphonique peut consister en une combinaison de quelques dispositifs, à la seule condition que la somme d’indices d’équivalence de la sonnerie de tous les dispositifs n’excède pas 5.”

IES: Voir sous le fond de l’ordinateur

CSA C22 2 NO.213-conforming model. (The model which has description of “CSA C22 2 NO.213” in the bottom of the computer.)

- THIS EQUIPMENT IS SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C AND D OR NON-HAZARDOUS LOCATION ONLY.
- WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.
- When connecting and using a device manufactured by a third party, enquire to the manufacturer as to whether the device suits CLASS I, DIVISION 2.

For Europe



Declaration of Conformity (DoC)

“Hereby, we and Panasonic Service Europe GmbH (PSE), declares that this Personal Computer is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC.”

Hint:

If you want to get a copy of the original DoC of our products which relates to the R&TTE, please contact to our web address: <http://doc.panasonic-tc.de>

Network connection.

The terminal equipment is intended for connection to the following public network;

In all the countries of European Economical Area;

- Public Switched Telephony Networks

Technical Features.

The terminal equipment includes the following features;

- DTMF dialing
- Maximum bitrate receiving mode: 56 kbits/s
- Maximum bitrate sending mode: 33.6 kbit/s

This product is designed to interwork with the Public Switched Telecommunication Networks in UK, Ireland, Netherlands, Sweden, Denmark, Finland, Switzerland, Luxembourg, Belgium, France, Germany, Spain, Portugal, Iceland, Greece, Italy, Norway and Austria.

Compliance Notice - CE Mark

This equipment is in conformance with the requirements of the European Council Directive listed below:

73/23/EEC Low Voltage Directive with amendment 93/68/EEC

89/336/EEC EMC Directive with amendments 92/31/EEC and 93/68/EEC

1999/5/EC

Read Me First

Important Safety Instructions / Importantes Mesures De Sécurité

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

SAVE THESE INSTRUCTIONS

Certaines mesures de sécurité doivent être prises pendant l'utilisation de matériel téléphonique afin de réduire les risques d'incendie, de choc électrique et de blessures. En voici quelquesunes:

1. Ne pas utiliser l'appareil près de l'eau, p.ex., près d'une baignoire, d'un lavabo, d'un évier de cuisine, d'un bac à laver, dans un sous-sol humide ou près d'une piscine.
2. Éviter d'utiliser le téléphone (sauf s'il s'agit d'un appareil sans fil) pendant un orage électrique. Ceci peut présenter un risque de choc électrique causé par la foudre.
3. Ne pas utiliser l'appareil téléphonique pour signaler une fuite de gaz s'il est situé près de la fuite.
4. Utiliser seulement le cordon d'alimentation et le type de piles indiqués dans ce manuel. Ne pas jeter les piles dans le feu: elles peuvent exploser. Se conformer aux règlements pertinents quant à l'élimination des piles.

CONSERVER CES INSTRUCTIONS

Precautions

The CF-18 was developed based on thorough research into the real-world portable computing environments. Exhaustive pursuit of usability and reliability under harsh conditions led to innovations such as the magnesium alloy exterior, vibration damped hard disk drive and floppy disk drive, flexible internal connections. The CF-18's outstanding engineering has been tested using the stiff MIL-STD- 810F (for vibration and shock) and IP (for dust and water) based procedures.

As with any portable computer device precautions should be taken to avoid any damage. The following usage and handling procedures are recommended.

Before putting the computer away, be sure to wipe off any moisture.



Avoid Radio Frequency Interference

Do not place the computer near a television or radio receiver.



Avoid Magnetic Fields

Keep the computer away from magnets. Data stored on the hard disk may be lost.



Keep Small Objects Away

Do not insert paper clips or other small objects into the computer.



Do Not Disassemble the Computer

Do not attempt to disassemble your computer.



Avoid Excessive Force on the Display

Do not apply excessive downward force on the display when it is completely opened, especially when plugs and/or cables are connected to the rear of the computer.



Avoiding low-temperature burns

Avoid more than casual contact with any heat producing area of the notebook computer, AC adaptor, and any option or accessory you use with it. Even low heat, if warmer than body temperature, can cause a burn, if the skin is exposed to the heat source for a long enough period of time.

Information to the User

This product and your Health

This product, like other radio devices, emits radio frequency electromagnetic energy. The level of energy emitted by this product however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because this product operates within the guidelines found in radio frequency safety standards and recommendations, we believe this product is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of this product may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

- Using this product on board of airplanes, or
- In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use this product prior to turning on the product.

Regulatory Information

We are not responsible for any radio or television interference caused by unauthorized modification of this product. The correction of interference caused by such unauthorized modification will be the responsibility of the user. We and its authorized resellers or distributors are not liable for damage or violation of government regulations that may arise from failing to comply with these guidelines.

Lithium Battery

Lithium Battery!

This computer contains a lithium battery to enable the date, time, and other data to be stored. The battery should only be exchanged by authorized service personnel.

Warning! A risk of explosion from incorrect installation or mis-application may possibly occur.

Pile au lithium!

Le micro-ordinateur renferme une pile au lithium qui permet de sauvegarder certaines données comme la date et l'heure notamment. Elle ne devra être remplacée que par un technicien qualifié.

Avertissement! Risque d'explosion en cas de non respect de cette mise en garde!

Precautions (Battery Pack)

- Care should be exercised with regard to the following in order to avoid the possibility of overheating, fire or damage.



Avoid Heat

Do not throw the battery pack into a fire or expose it to excessive heat.



Keep Articles Away

Do not place the battery pack together with articles such as necklaces or hairpins when carrying or storing.



Do Not Disassemble

Do not insert sharp objects into the battery pack, expose it to bumps or shocks, deform, disassemble, or modify it.



Do Not Short

Do not short the positive (+) and negative (-) contacts.



Avoid Extreme Heat, Cold and Direct Sunlight

Do not charge, use or leave the battery pack for extended periods where it will be exposed to direct sunlight, in a hot place (in an automobile on a sunny day, for example), or in a cold place.



Do Not Use With Any Other Computer

The battery pack is rechargeable and was intended for the specified computer or charger. Do not use it with a computer other than the one for which it was designed.



Do Not Put into a Microwave

Do not put the battery pack into a microwave oven or a pressurized chamber.



Stop Using

Should the battery emit an abnormal odor, become hot to the touch, become discolored, change shape, or become in any way different from normal, remove it from the computer or charger and stop using it.

- Do not touch the terminals on the battery pack. The battery pack may no longer function properly if the contacts are dirty or damaged.
- Do not expose the battery pack to water, or allow it to become wet.

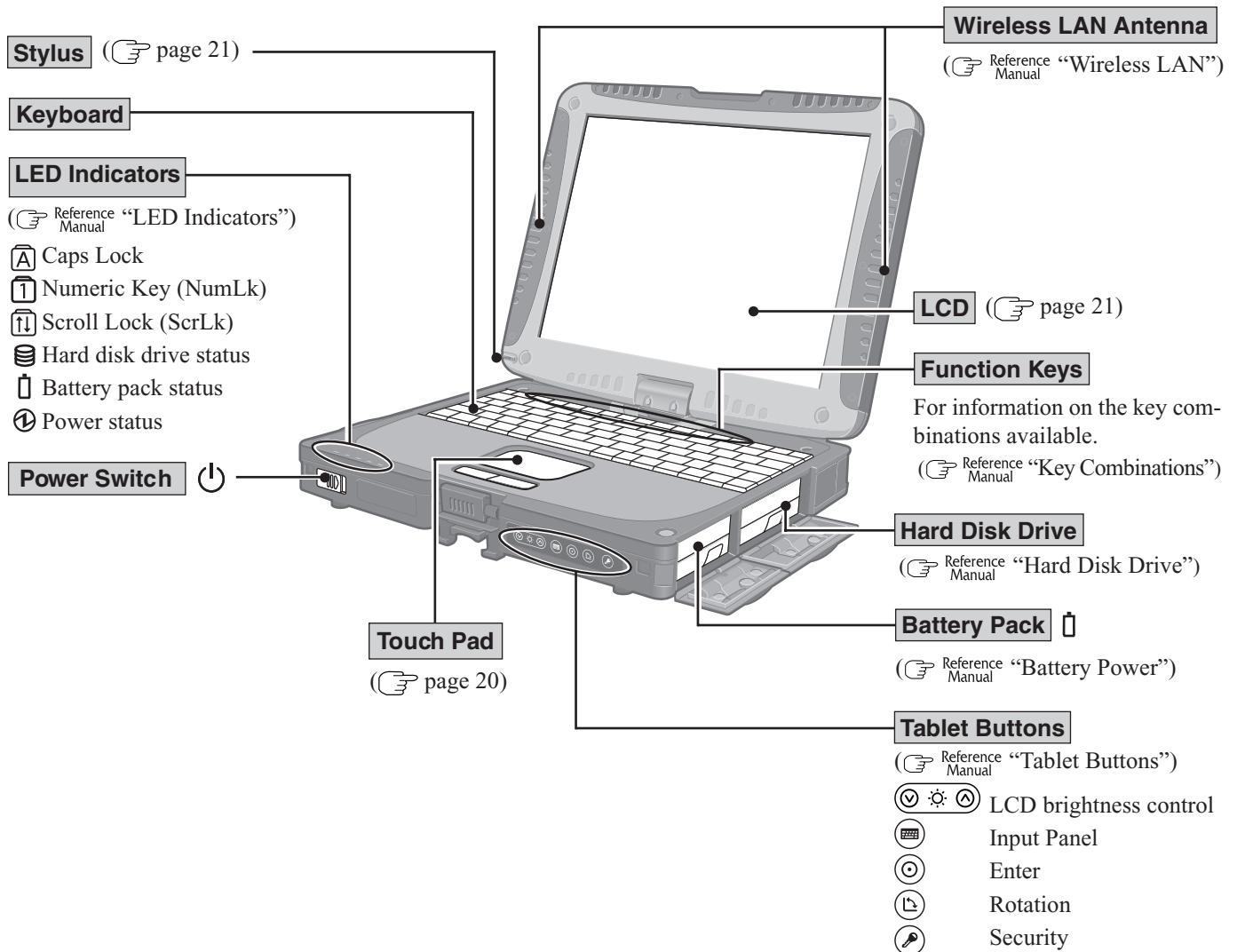
- If the battery pack will not be used for a long period of time (a month or more), charge or discharge (use) the battery pack until the remaining battery level becomes 30% to 40% and store it in a cool, dry place.
- This computer prevents overcharging of the battery by recharging only when the remaining power is less than approx. 95% of capacity.
- The battery pack is not charged when the computer is first purchased. Be sure to charge it before using it for the first time. When the AC adaptor is connected to the computer, charging begins automatically.
- Should the battery leak and the fluid get into your eyes, do not rub your eyes. Immediately flush your eyes with clear water and see a doctor for medical treatment as soon as possible.

NOTE

- The battery pack may become warm during recharging or normal use. This is completely normal.
- Recharging will not commence if internal temperature of the battery pack is outside of the allowable temperature range (0 °C to 50 °C {32°F to 122 °F}) Reference Manual "Battery Power". Once the allowable range requirement is satisfied, charging begins automatically. Note that the recharging time varies based on the usage conditions. (Recharging takes longer than usual when the temperature is 10 °C {50 °F} or less.)
- If the temperature is low, the operating time is shortened. Only use the computer within the allowable temperature range.
- This computer has a high temperature mode function that prevents the degradation of the battery in high temperature environments. Reference Manual "Battery Power". A level corresponding to a 100% charge for high temperature is approximately equivalent to an 80% charge level for normal temperature mode.
- The battery pack is a consumable item. If the amount of time the computer can be run off a particular battery pack becomes dramatically shorter and repeated rechargings do not restore its performance, the battery pack should be replaced with a new one.
- When transporting a spare battery inside a package, briefcase, etc., it is recommended that it be placed in a plastic bag so that its contacts are protected.
- Always power off the computer when it is not in use. Leaving the computer on when the AC adaptor is not connected will exhaust the remaining battery capacity.

Names and Functions of Parts

The illustrations shown may differ from the actual physical appearances.



CAUTION

- Do not cover the computer with a thick cloth, such as a blanket.



A lithium ion battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

L'appareil que vous vous êtes procuré est alimenté par une batterie au lithium-ion. Pour des renseignements sur le recyclage de la batterie, veuillez composer le 1-800-8-BATTERY.

Security Lock

LOCK

A cable can be connected to prevent theft of your computer. For more information, read the manual provided with the cable.

Microphone Jack

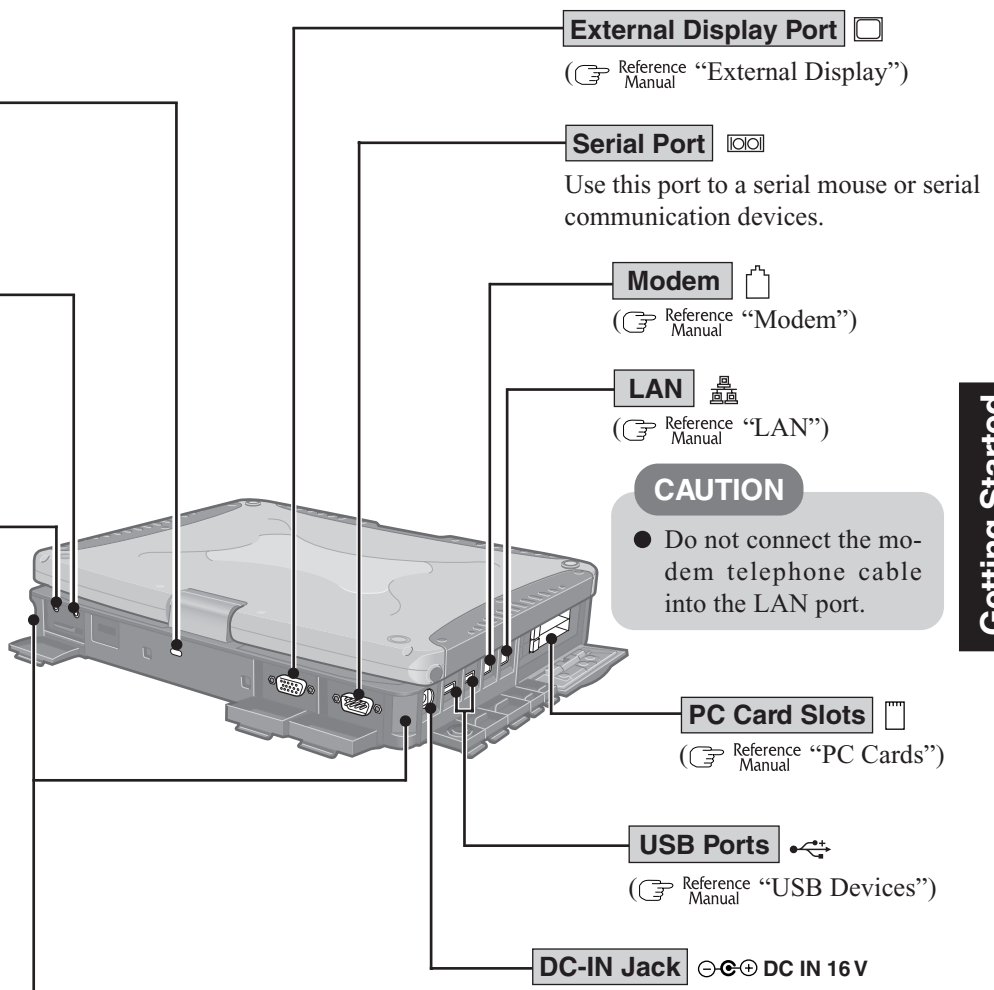


Use only a monaural condenser microphone (miniature jack). Using an input source other than a monaural condenser microphone may not allow audio to be input or may damage the equipment.

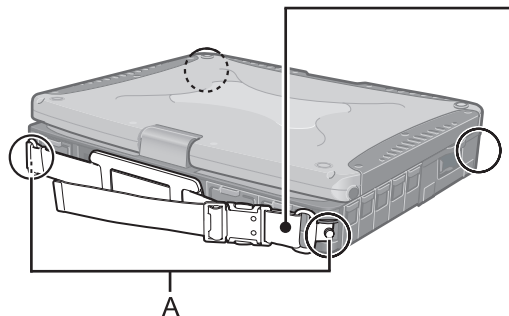
Headphone Jack



Use this jack to connect headphones or amplifier-equipped speakers. Audio output from the internal speaker is disabled when headphones or external speakers are connected.



Hand Strap



A

(The above illustration shows the position where the hand strap is attached at the factory.)

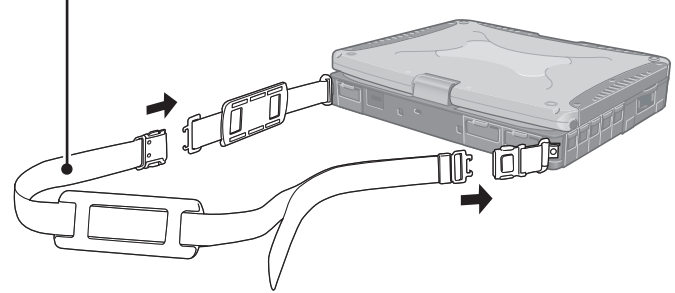
The hand strap can be attached to any two of the four corners using screws (A) which were used to attach the hand strap. Adjust the length of the belt so that the computer does not fall by mistake, and firmly hold the computer when using it.

CAUTION

- The strap has been designed to carry only the weight of the computer. Therefore, be sure that the strap does not carry a weight that exceeds the weight of the computer. The strap may accidentally come loose from the computer.
- Do not use a strap that is damaged or about to tear.

Shoulder Strap

The shoulder strap can be connected to the hand strap to make it longer.



Names and Functions of Parts

External Antenna Connectors

The external antenna connector is for use as an extension in the future.

CAUTION

- FCC RF Exposure Warning:
Optional Port Replicator contains TNC connector for external mounted antenna. Employed 2.4 GHz wireless LAN antenna cannot exceed 6 dBi antenna gain and must be professionally installed. Also, must maintain minimum 20 cm spacing between external antenna and all person's body during wireless mode of operation.

CAUTION

- Do not allow metallic objects or magnetic media to come near these areas.

Expansion Bus Connector

(Reference Manual "Port Replicator")



RAM Module Slot

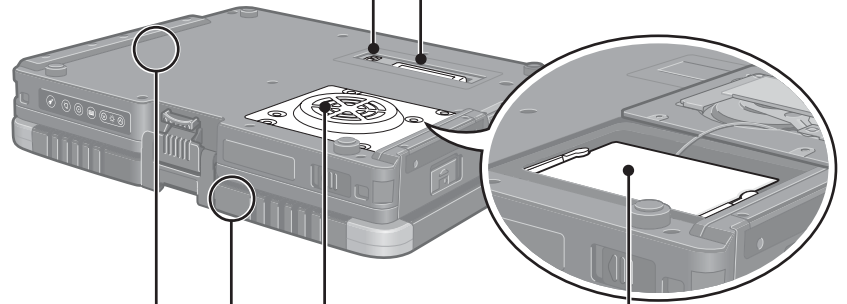
(Reference Manual "RAM Module")

Speaker

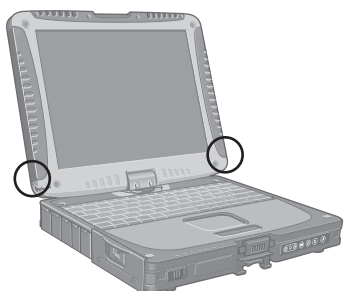
- To adjust the volume:
Fn + **F5** / **Fn** + **F6**
- Speaker on/off : **Fn** + **F4**

CAUTION

- Do not allow metallic objects or magnetic media to come near the speaker on the bottom surface of the computer.
 - Because the speaker contains a magnet, metal objects may become attached to the bottom surface of the computer. This may cause the computer to be unstable, or may mark the surface of the desk on which it is sitting.
 - If floppy disks, magnetic memory cards, or other magnetic media approach the speaker, there is a risk that data will be destroyed.



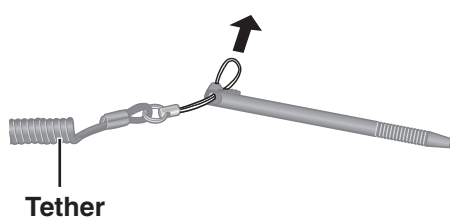
Using the Tether



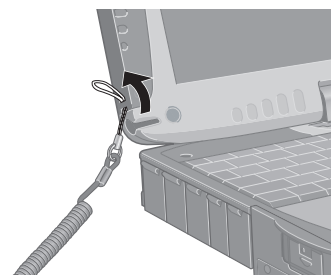
The tether can be attached to the bottom right or bottom left corner of the display. It prevents the stylus (included) from falling accidentally.

Attaching the Tether

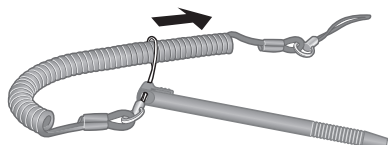
1



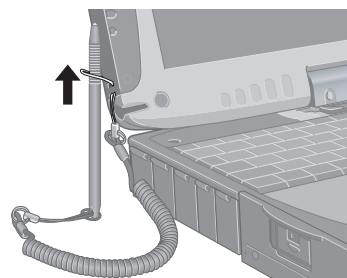
3



2

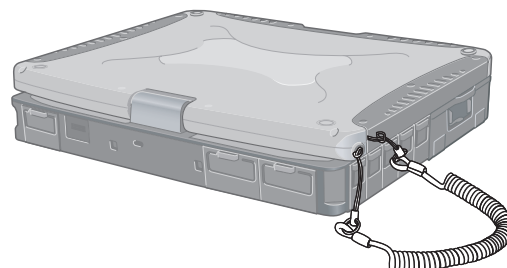
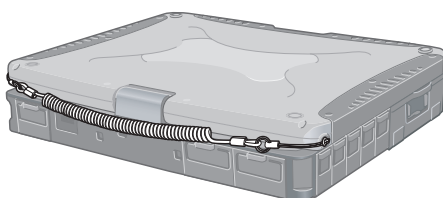


4



CAUTION

- When closing the display, be careful not to catch the tether between the display and main part of the computer. (See the figure below.)

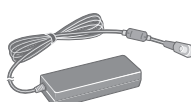
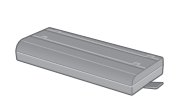
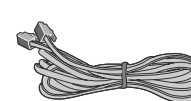
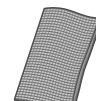
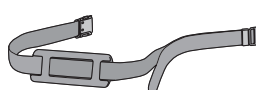


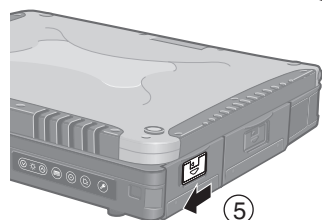
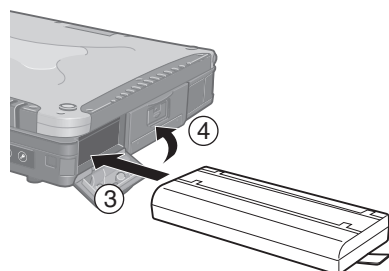
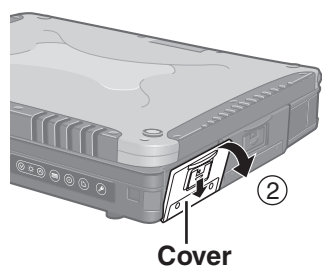
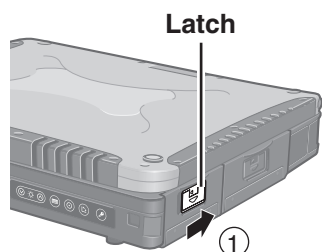
First-time Operation

Read the steps below to help you learn what parts are included, and to gain an understanding of some basic computer-related operations.

1 Confirm the inclusion of all parts.

Make sure the parts shown in the figure have been supplied. If any of these items are missing or are not working properly, contact Panasonic Technical Support.

AC adaptor 1	AC Cord 1	Battery Pack 1
 Model No : CF-AA1623A		 Model No : CF-VZSU30
Modem Telephone Cable 1	Soft Cloth 1	Stylus 1
		 (☞ Reference "Touchscreen")
Tether 1	Shoulder Strap 1	Operating Instructions (This book) 1 Windows® Book 1 Product Recovery CD-ROM 3
 (☞ page 11)	 (☞ page 9)	



2 Read the LIMITED USE LICENSE AGREEMENT. (☞ page 36)

Be sure to read the LIMITED USE LICENSE AGREEMENT before breaking the seal on the computer's packaging.

3 Insert the battery pack.

- ① Unlock the cover by sliding the latch to the right.
- ② Slide the latch down, and then without releasing it, open the cover as illustrated.
- ③ Slide the battery pack inward until it is firmly in place.

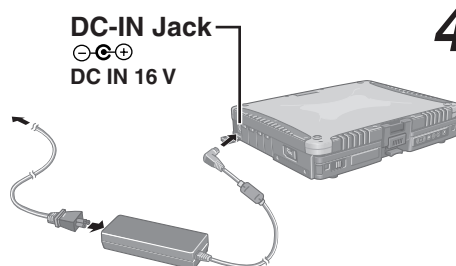
CAUTION

- Do not touch the terminals on the battery pack and the computer. The battery pack may no longer function properly if the contacts are dirty or damaged. Also, the computer may not operate properly.
- Be sure to insert the battery pack as illustrated.

- ④ Close the cover until it clicks into place.
- ⑤ Lock the cover by sliding the latch to the left.

CAUTION

- Confirm that the latch lock is correctly in place. If you carry your computer without the latch lock in place, the battery pack may fall out.
- Before using the battery pack, carefully read "Precautions (Battery Pack)" (☞ page 7).



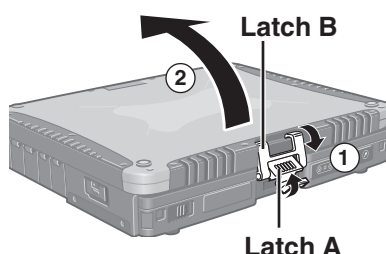
4 Connect your computer to a power outlet.

CAUTION

- Be sure the AC adaptor is connected until completing the first-time use operation.
- When using the computer for the first time, do not connect any peripheral device except the battery pack and AC adaptor to the computer.

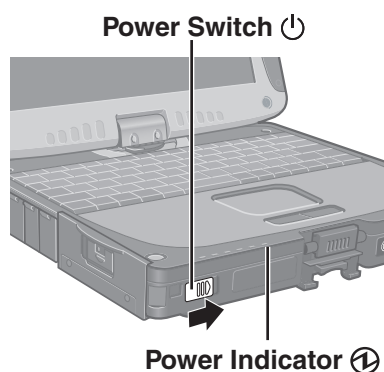
Handling the AC adaptor

- Do not twist or pull the AC power cord forcefully. Doing so may damage the connections.
- Use only the specified AC adaptor with your computer. Using an AC adaptor other than the one supplied might damage the battery and/or the computer.
- When the DC plug is not connected to the computer, disconnect the AC cord from your AC wall outlet.
- Problems such as sudden voltage drops may arise during periods of thunder and lightning. Since this could adversely affect your computer, an uninterruptible power source (UPS) is highly recommended unless the battery pack is installed.



5 Open the display.

- ① Pull up on the latch A and release the latch B.
- ② Lift open the display.



6 Turn your computer on.

Slide the power switch and hold it for approximately one second until the power indicator turns on before releasing it.

CAUTION

- Do not slide the power switch and hold it for more than four seconds; this will cause the power to be turned off forcibly.
- Do not slide the power switch repeatedly.
- Once the computer is powered off, you must wait at least ten seconds before powering it on again.

7 Setup Windows.

Moving the cursor (⏶) or clicking buttons can be performed with the touch pad (☞ page 20).

CAUTION

- Do not press any keys or touch the touch pad until [Windows XP Professional Setup] is displayed.
- Do not use the touchscreen during the Windows setup.

- ① At [Welcome to the Windows XP Setup Wizard], select [Next].
- ② After reading the agreement, select [I accept this agreement] or [I don't accept this agreement], then select [Next].

NOTE

- If [I don't accept this agreement] is selected, the Windows setup will be aborted.

- ③ Select settings for your region, then select [Next].
- ④ Enter your name and organization and then select [Next].

First-time Operation

- ⑤ Enter your computer name and administrator password and then select [Next].

CAUTION

- Remember this password! If the password is forgotten, Windows cannot be operated.

- ⑥ Enter the correct date, time and time zone, then select [Next].
The computer will restart.

NOTE

- It will take some time before the computer restarts and the screen of step ⑦ is displayed. Wait, and do not press any keys, or touch the touch pad, etc.

- ⑦ Enter your administrator password and select .

8 Calibrate the touchscreen.

- ① Select [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse] - [TouchScreen] - [Calibration].
- ② Touch the “+” mark on the calibration screen with the stylus (included) for about one second.
- ③ After the calibration procedure is executed (e.g., after the nine “+” marks are touched), the procedure ends when **Enter** is pressed.
- ④ Select [OK].

9 Create a new account.

- ① Select [start] - [Control Panel] - [User Accounts] - [Create a new account].
- ② Enter a name for the new account, then select [Next].
- ③ Select [Computer administrator], then select [Create Account].
- ④ <When you want to create a password for the new account>
Select the new account you have created and select [Create a password].
Follow the instructions on the screen to create a password.
- ⑤ Select [start] - [Turn Off Computer] - [Restart] to restart the computer.

CAUTION

- Remember this password! If the password is forgotten, Windows cannot be operated. You can create a password reset disk beforehand ( page 16).

NOTE

- **When creating a new user account:**

- If you make mail settings, create password reset disks (☞ page 16), or conduct other related operations before creating the user account, you will be unable to use any previous mail history or settings.
- When you create the first new account, you can only select [Computer administrator].

Once a “Computer Administrator” account has been created, you can create additional limited user accounts.

Note also that only the added user account will be displayed in the Welcome screen. The account for the administrator created during Windows setup will not be displayed.

- If the characters or icons on the screen are too small and difficult to see, after completing step 9, select [start] - [All Programs] - [Panasonic], and select [Icon Enlarger]. This will allow you to magnify the display of characters and icons on the screen.
- The [Icon Enlarger] can be set separately for each account.

10 Start up Windows Media Player.

Log on with the administrator authority, and select  on the screen.

After this, start up the application following the instructions on the screen.

- During this process, you will be required to agree to the license agreement. For Windows Media Player, it is necessary to agree to the license agreement for each account created.
- If [I Decline] is selected or a window is closed without any decision being made in the license agreement, no icons on the desktop may be selected. In this case, restart the computer.
- After completing the settings, select  on the screen, and close the Windows Media Player.

NOTE

- If you use the wireless LAN, be sure to refer to the Reference Manual’s “Wireless LAN”.

This concludes the first-time use operation guidelines.

Specifications

● Main Specifications

Model No.			CF-18DHAZXKM
CPU			Intel® Pentium M processor 1.1 GHz ULV
L2 (Second) Cache Memory			1 MB*1
Memory			256 MB*1 (768 MB*1 Max.)
Video Memory			UMA (64 MB*1 Max.)*2
LCD	Type	10.4 type (TFT)	
	Displayed Colors*3	65536/Approx. 16,000,000 colors (800 x 600 dots/1024 x 768 dots)	
External Display			65536/Approx. 16,000,000 colors (800 x 600 dots/1024 x 768 dots/1280 x 1024 dots)*4
Hard Disk Drive			40 GB*5
Keyboard			Windows keyboard (82 keys)
Pointing Device			Touch Pad Touchscreen (Anti-Reflection, Stylus (included) touch capable)
PC Card Slot			Two Type I or Type II, or one Type III
	Allowable current (total for two slots)		3.3 V: 400 mA, 5 V: 400 mA
RAM Module Slot*6			200-pin, 2.5 V, SO-DIMM, DDR-SDRAM, PC2100 Compliant
Interface	Serial Port		Dsub 9-pin Male
	Microphone Jack*7		Miniature jack, 3.5 DIA
	Headphone Jack		Miniature jack, 3.5 DIA
	USB Port		4-pin x 2, USB2.0
	Modem		RJ-11 Data:56 kbps (V.92 & K56flex*8) FAX:14.4 kbps
	LAN		RJ 45 IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX
	Wireless LAN		IEEE 802.11b/g compliant Frequency 2.4 GHz band
	Expansion Bus Connector		Dedicated 100-pin female
External Antenna Connector			Dedicated 50 Ω coaxial connector x 2
Speaker			Monaural Speaker
Sound			AC '97 2.1 Compatible, 18 bits full duplex stereo
Battery Pack			Li-ion 7.4 V, 6.6 Ah
	Operating Time*9		Approx. 4.5 hours - 8 hours*10 (Approx. 6 hours*11)
	Charging Time*9	Power On	Approx. 7 h
		Power Off	Approx. 3.5 h
	Clock Battery		Coin type lithium battery 3.0 V
AC Adaptor*12			Input : 100 V - 240 V AC, 50 Hz / 60 Hz Output : 16.0 V DC, 2.5 A
Power Consumption*13			Approx. 18 W*14 / Approx. 41 W (maximum when recharging in the ON state)
Environment	In use	Temperature	5 °C to 35 °C {41 °F to 95 °F}
		Humidity	30% to 80% RH (No condensation)
	Not in use	Temperature	-20 °C to 60 °C {-4 °F to 140 °F}
		Humidity	30% to 90% RH (No condensation)
Physical Dimensions*15 (W X H X D)			271 mm X 49 mm X 216 mm {10.7 " X 1.93 " X 8.5 "}
Weight*15			Approx. 2.1 kg {Approx. 4.5 lb.}

*1 1 MB = 1,048,576 bytes

*2 A segment of the main memory is allotted automatically depending on the computer's operating status. The size of the Video Memory cannot be set by the user.

*3 A 16,000,000 color display is achieved by using the dithering function.

*4 Maximum resolution depends on the specifications of the external display.

*5 1GB = 1,000,000,000 bytes. Your operating system or some application software will report as fewer GB.

*6 Only a RAM card designed for PC2100 can be added.

*7 Use only a monaural condenser microphone.

*8 The settings for the K56flex modem need to be changed according to the AT command.

*9 Varies depending on the usage conditions, CPU speed, etc.

*10 Measured using BatteryMark™ Version 4.0.1 (LCD brightness: Maximum - Minimum)

*11 Measured using MobileMark™ 2002 (LCD brightness: 60 cd/m²)

*12 <Only for North America>

The AC adaptor is compatible with power sources up to 240 V AC adaptor. The computer is supplied with a 125 V AC compatible AC cord.

*13 Approx. 0.7 W when the battery pack is fully charged (or not being charged) and the computer is off.

Approx. 1.5 W when the Wake up from LAN function has been enabled.

*14 Rated power consumption.

*15 The dimensions and weight do not include the hand strap.

Specifications

● Software

Operating System	Microsoft® Windows® XP Professional with Service Pack1a (NTFS File System)
Utility Programs	Setup Utility DMI Viewer Adobe® Acrobat® Reader Panasonic Hand Writing Software Keyboard Display Rotation Tool PC Information Viewer Hard Disk Backup Utility* ¹⁶ Hard Disk Data Erase Utility* ¹⁶ Intel® PROSet Icon Enlarger

*¹⁶ The Product Recovery CD-ROM is required.