



Panasonic®

OPERATING INSTRUCTIONS

Personal Computer

Model No. **CF-T5** series

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Getting Started

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Appendix

For further information about the computer, you can refer to the on-screen manual.

To access the on-screen manual
→ page 17 "On-screen Manual"

For your technical support office, refer to
"LIMITED WARRANTY."

on

Panasonic computer. For optimal performance, read these instructions

read these instructions

These instructions

may result in minor or major damage to your computer. For more information, see the user manual.

key, and then press the **Enter** key. Click **[Run]**.

Click **[OK]**.

Click **[OK]**.

Click **[OK]**.

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hardware. Check www.windowstv.com/getready for details.

* If a hardware driver is required, it will be provided by Panasonic after the release of Windows Vista.

for
Windows X

Read Me First

Models 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.

6-M-1

FCC RF Exposure Warning:

<Only for model with wireless LAN/wireless WAN/Bluetooth>

- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
- This equipment must be installed and operated in accordance with provided instructions and minimum 1.5 cm spacing must be provided between antenna and all person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.
- This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.
- This computer is provided with a PC Card slot that could be used with wireless transmitter(s), which will be specifically recommended, when they become available. Other third-party wireless transmitter(s) have not been RF exposure evaluated for use with this computer and may not comply with FCC RF exposure requirements.

25-M-2-1

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: Panasonic Corporation of North America
One Panasonic Way
Secaucus, NJ 07094
Tel No: 1-800-LAPTOP5 (1-800-527-8675)

6-M-1

FCC Regulation Notice for modem

This equipment contains a FCC approved modem.

FC 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 advance that temporary discontinuance of service may be required. But if advance 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 its 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 Panasonic Corporation of North 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.

Read Me First

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."

16-M-1

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/>>

24-M-1

<For USA-California Only>

This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material- special handling may apply.

See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>

38-M-1

Models 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 ATTACHEMENT 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

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

17-Ca-1

<Only for model with wireless LAN/Bluetooth>

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.

This product (local network devices) for the band 5150-5250 MHz is only indoor usage to reduce potential for harmful interference to co-channel Mobile Satellite systems.

High power radars are allocated as primary users (meaning they have priority) of 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LELAN devices.

30-Ca-1

Models for Europe

<Only for model with a "CE" mark on the bottom of the computer>



Declaration of Conformity (DoC)

"Hereby, we declare 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 our web address: <http://www.doc.panasonic.de>

Contact:

Panasonic Services Europe

A Division of Panasonic Marketing Europe GmbH

Panasonic Testing Centre

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 kbit/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.

18-E-1

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 R&TTE

21-E-1

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

19-E-1

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.

ONSERVER CES INSTRUCTIONS

19-F-1

Information to the User

<Only for model with wireless LAN/Bluetooth>

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.

26-M-1

Lithium Battery / Pile au lithium

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 misapplication may possibly occur.

15-E-1

Pile au lithium!

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

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

15-F-1

Precautions

THIS PRODUCT IS NOT INTENDED FOR USE AS, OR AS PART OF, NUCLEAR EQUIPMENT/SYSTEMS, AIR TRAFFIC CONTROL EQUIPMENT/SYSTEMS, OR AIRCRAFT COCKPIT EQUIPMENT/SYSTEMS^{*1}. PANASONIC WILL NOT BE RESPONSIBLE FOR ANY LIABILITY RESULTING FROM THE USE OF THIS PRODUCT ARISING OUT OF THE FOREGOING USES.

^{*1} AIRCRAFT COCKPIT EQUIPMENT/SYSTEMS include Class2 Electrical Flight Bag (EFB) Systems and Class1 EFB Systems when used during critical phases of flight (e.g., during take-off and landing) and/or mounted on to the aircraft. Class1 EFB Systems and 2 EFB Systems are defined by FAA: AC (Advisory Circular) 120-76A or JAA: JAA TGL (Temporary Guidance Leaflets) No.36.

Panasonic cannot guarantee any specifications, technologies, reliability, safety (e.g. Flammability/Smoke/Toxicity/Radio Frequency Emission, etc) requirements related to aviation standards that exceed the specifications of our COTS (Commercial-Off-The-Shelf) products.

This computer is not intended for use in medical equipment including life-support systems, air traffic control systems, or other equipment, devices or systems that are involved with ensuring human life or safety. Panasonic cannot be held responsible in any way for any damages or loss resulting from the use of this computer in these types of equipment, devices or systems, etc.

If a Malfunction Occurs, Immediately Unplug the AC Cord and the Battery Pack

- Computer is damaged
- Foreign object inside computer
- Smoke emitted
- Unusual smell emitted
- Unusually hot

Continuing to use the computer while any of the above conditions are present may result in fire or electric shock.

- If a malfunction occurs, immediately turn the power off and unplug the AC cord, and then remove the battery pack.

Do Not Touch the Computer and Cable When It Starts Thundering

Electric shock may result.

Do Not Connect the AC Adaptor to a Power Source Other Than a Standard Household AC Outlet

Otherwise, a fire due to overheating may result. Connecting to a DC/AC converter (inverter) may damage the AC adaptor. On an airplane, only connect the AC adaptor/charger to an AC outlet specifically approved for such use.

Do Not Do Anything That May Damage the AC Cord, the DC Plug, or the AC Adaptor

Do not damage or modify the cord, place it near hot tools, bend, twist, or pull it forcefully, place heavy objects on it, or bundle it tightly.

Continuing to use a damaged cord may result in fire, short circuit, or electric shock.

Do Not Pull or Insert the DC Plug If Your Hands Are Wet

Electric shock may result.

Clean the DC Plug of Dust and Other Debris Regularly

If dust or other debris accumulates on the plug, humidity, etc. may cause a defect in the insulation, which may result in a fire.

- Pull the plug, and wipe it with a dry cloth.
Pull the plug if the computer is not being used for a long period of time.

Insert the AC Plug Completely

If the plug is not inserted completely, fire due to overheating or electric shock may result.

- Do not use a damaged plug or loose AC outlet.

Do Not Place Containers of Liquid or Metal Objects on Top of the Computer

If water or other liquid spills, or if paper clips, coins, or foreign matter get inside the computer, fire or electric shock may result.

- If foreign matter has found its way inside, immediately turn the power off and unplug the AC cord, and then remove the battery pack. Then contact your technical support office.

Do Not Disassemble the Computer

There are high-voltage areas inside which may give you an electric shock if you should touch them. Do not touch the pins and circuit boards inside, and do not allow foreign matter to enter inside.

Also, remodeling or disassembly may cause a fire.

Keep SD Memory Cards Away from Infants and Small Children

Accidental swallowing will result in bodily injury.

In the event of accidental swallowing, see a doctor immediately.

Do Not Place the Computer on Unstable Surfaces

If balance is lost, the computer may fall over or drop, resulting in an injury.

Avoid Stacking

If balance is lost, the computer may fall over or drop, resulting in an injury.

Do Not Keep the Computer Wherever There is a Lot of Water, Moisture, Steam, Dust, Oily Vapors, etc.

Otherwise, possibly resulting in fire or electric shock.

Do Not Leave the Computer in High Temperature Environment Such as in a Sun-Heated Car, for a Long Period of Time

Leaving the computer where it will be exposed to extremely high temperatures such as in a sun-heated car or in direct sunlight may deform the cabinet and/or cause trouble in the internal parts. Continued use in such a resulting condition may lead to short-circuiting or insulation defects, etc. which may in turn lead to a fire or electric shocks.

Hold the Plug When Unplugging the AC Cord

Pulling on the cord may damage the cord, resulting in a fire or electric shock.

Do Not Move the Computer While the DC Plug Is Connected

The AC cord may be damaged, resulting in fire or electric shock.

- If the AC cord is damaged, unplug the DC plug immediately.

Use Only the Specified AC Adaptor With Your Computer

Using an AC adaptor other than the one supplied (attached to your computer or supplied by Panasonic) may result in a fire.

Read Me First

Do Not Subject the AC Adaptor to Any Strong Impact

Using the AC adaptor after a strong impact such as being dropped may result in electric shock, short circuit, or fire.

Take a Break of 10-15 Minutes Every Hour

Using the computer for long periods of time may have detrimental health effects on the eyes or hands.

Do Not Turn the Volume Up to Loud When Using Headphones

Listening at high volumes that overstimulate the ear for long periods of time may result in loss of hearing.

Use the Modem with a Regular Telephone Line

Connection to an internal phone line (on-premise switches) of a company or business office, etc. or to a digital public phone or use in a country or area not supported by the computer may result in a fire or electric shocks.

Do Not Connect a Telephone Line, or a Network Cable Other Than the One Specified, into the LAN Port

If the LAN port is connected to a network such as the ones listed below, a fire or electric shock may result.

- Networks other than 100BASE-TX or 10BASE-T

- Phone lines (Telephone lines, internal phone lines (on-premise switches), digital public phones, etc.)

Do Not Use with Exposing the Skin to the Computer for a Long Period of Time

Using the computer with exposing the skin to the heat source of the computer or AC adaptor for a long period of time can cause a low-temperature burn.

- Do not place the computer near a television or radio receiver.
- Keep the computer away from magnets. Data stored on the hard disk may be lost.

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

36-M-1

Precautions (Battery Pack)

Do Not Use with Any Other Computer

The battery pack is rechargeable and was intended for the specified computer or charger. If it is used with a computer other than the one for which it was designed, electrolyte leakage, generation of heat, ignition or rupture may result.

Do Not Charge the Battery Using the Methods Other Than Indicated in This Manual

If the battery pack is not charged using one of the methods indicated in this manual, electrolyte leakage, generation of heat, ignition or rupture may result.

Do Not Throw the Battery Pack into a Fire or Expose It to Excessive Heat

Generation of heat, ignition or rupture may result.

Avoid Extreme Heat (Near the Fire, in Direct Sunlight, for Example)

Electrolyte leakage, generation of heat, ignition or rupture may result.

Do Not Insert Sharp Objects into the Battery Pack, Expose It to Bumps or Shocks, Disassemble, or Modify It

Electrolyte leakage, generation of heat, ignition or rupture may result.

Do Not Short the Positive (+) and Negative (-) Contacts


Generation of heat, ignition or rupture may result. Do not place the battery pack together with articles such as necklaces or hairpins when carrying or storing.

Do Not Use This Computer with a Battery Pack Other Than the One Specified

Use only the specified battery pack (CF-VZSU37) with your CF-T5. Use of battery packs other than those manufactured and supplied by Panasonic may present a safety hazard (generation of heat, ignition or rupture).

- 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% (when Economy Mode (ECO) is enabled: 75%) 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 55 °C {32 °F to 131 °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 below.)
- If the temperature is low, the operating time is shortened. Only use the computer within the allowable temperature range.
- The battery pack is a consumable item. If the amount of time the computer can be run by using a particular battery pack becomes dramatically shorter and repeated recharging does 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.

Description of Parts



A : Function Key

→ *Reference Manual* "Key Combinations"

B : Keyboard

C : LED Indicator

- : Caps lock
- : Numeric key (NumLk)
- : Scroll lock (ScrLk)
- : Hard disk drive status

ECO: Economy Mode (ECO) status

→ *Reference Manual* "Power"

: Battery status

→ *Reference Manual* "Battery Power"

D : Power Switch

→ page

Power

- Combination
- on
- Screen: Standby

E : Wireless Switch

<Only for model with wireless LAN/wireless WAN/Bluetooth>

→ *Reference Manual* "Wireless Switch Utility"
"Wireless LAN"

F : Touch Pad

→ *Reference Manual* "Using the Touch Pad"

G : LCD/Touchscreen

→ *Reference Manual* "Using the Touchscreen"

H : Speaker

I : LAN Port

When a LAN cable is connected to the computer, use the LAN port on the Mini Port to use the LAN port on the computer.

→ *Reference Manual* "LAN"

J : Modem Port

Be sure to use the included modem telephone cable, and insert the end of the cable with the ferrite core into the modem port on the computer.

→ *Reference Manual* "Modem"

K : Security Lock

You can connect a Kensington cable. Refer to the instruction manual of the cable. The security lock and cable is a theft prevention device. Matsushita Electric Industrial Co., Ltd. will bear no responsibility in the event of theft.

L : USB Ports

→ *Reference Manual* "USB Devices"

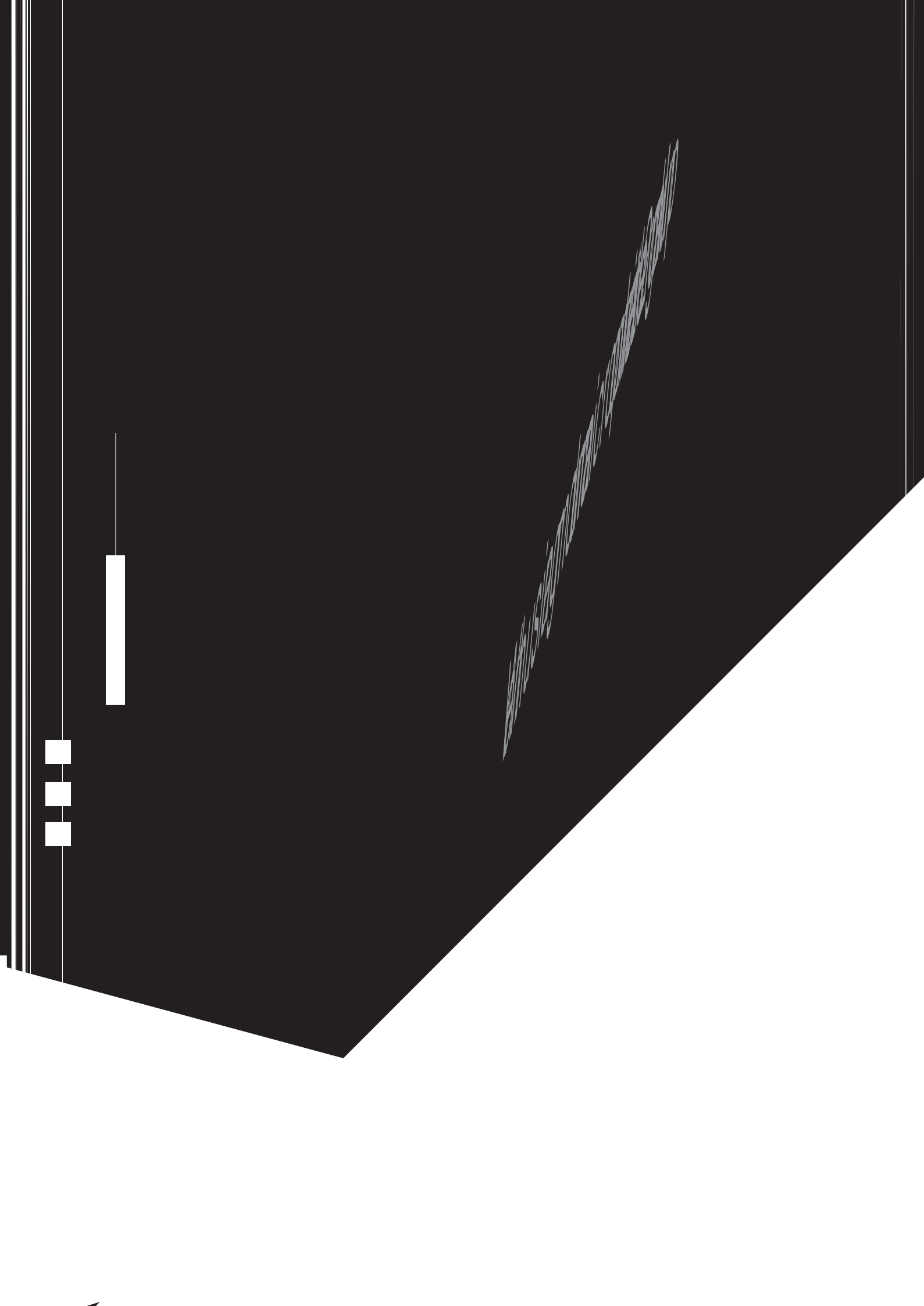
M : Wireless LAN Antenna

<Only for model with wireless LAN>

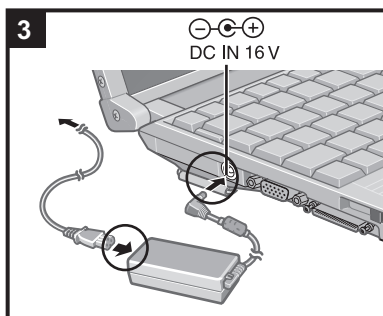
→ *Reference Manual* "Wireless LAN"

N : Bluetooth Antenna

<Only for model with Bluetooth>





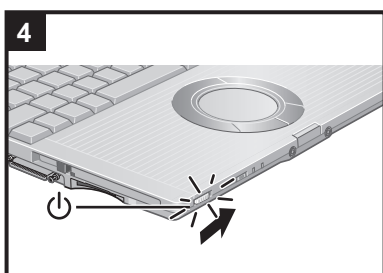


3 Connect your computer to a power outlet.



The battery charging starts automatically.

CAUTION


- Do not disconnect the AC adaptor and do not switch the wireless switch to on until the first-time operation procedure is completed.
- When using the computer for the first time, do not connect any peripheral device except the battery pack and AC adaptor.
- **Handling the AC adaptor**
 - 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 running from the battery pack alone.



4 Turn on the computer.

Slide and hold the power switch  for approximately one second until the power indicator  lights.


CAUTION

- Do not slide the power switch repeatedly.
- The computer will forcibly be turned off if you slide and hold the power switch for four seconds or longer.
- Once you turn off the computer, wait for ten seconds or more before you turn on the computer again.
- Do not perform the following operation until the hard disk drive indicator  turns off.
 - Connecting or disconnecting the AC adaptor
 - Sliding the power switch
 - Touching the keyboard, touch pad or touchscreen
 - Closing the display
- Do not change the Setup Utility until completing step 5. If you do so, Windows setup may not operate properly.

5 Setup Windows.

Follow the on-screen instructions.

- The computer will restart after the setup is complete.

To go to the next step, wait until the hard disk drive indicator  has turned off.

CAUTION

- When you set date/time/time zone and click [Next], the screen may not go to the next step for a few minutes. Do not touch the keyboard or touch pad, and wait until the screen changes.

6 Create a new account.

Click [start] - [Control Panel] - [User Accounts] - [Create a new account].

CAUTION

- Remember your password. If you forget the password, you cannot use the Windows operation system. Creating a password reset disk beforehand is recommended.

7 Perform the touchscreen calibration.

- ① Click [start] - [All Programs] - [Fujitsu Touch Panel (USB)] - [Touch Screen Calibration Utility].
- ② Using the stylus, touch each of the 12 "+" target marks one by one until it blinks, and then click [Calibration].
- ③ Click [Save & Exit].

NOTE

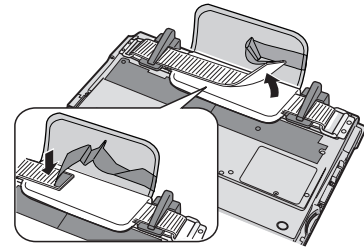
- **Regarding Windows XP**

You can select the Classic view of Control Panel or the Classic Start menu. You can also change the way a user logs on or off. This manual explains using the Windows XP default setting (not Classic view or Classic Start menu etc.).

- **Windows Update**

You can update to the latest patches and service packs for Windows with the following menus.

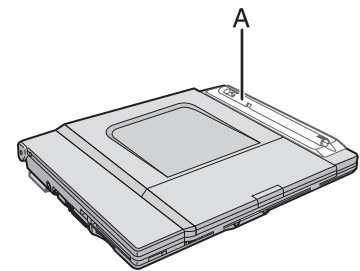
2 Adjust the length of the band.



3 Close the tape on the hand strap firmly.

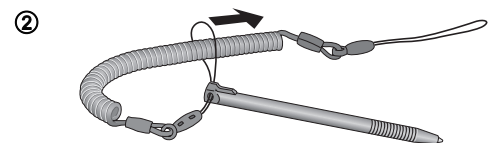
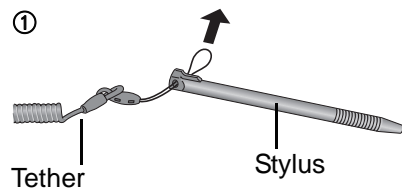
Before Using the Stylus

At the time of purchase, the stylus (included) is not attached to the stylus holder (A). The tether prevents the stylus from falling accidentally. It can be attached to the stylus holder

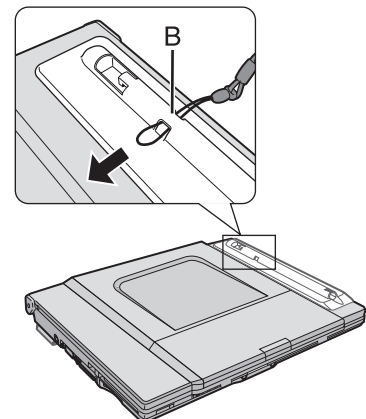


Perform the following steps before using the stylus.

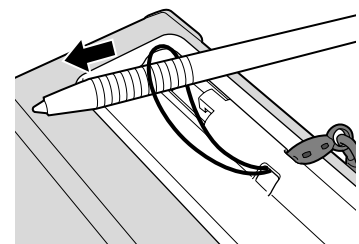
1 Attach the tether to the stylus.



2 Thread the stylus strap of the tether from (B) in the direction of the arrow.



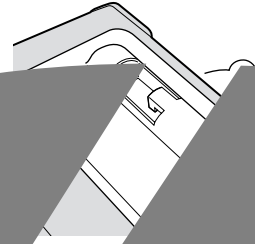
3 Pass the stylus through the strap.



First-time Operation

4 Fasten the strap to the hook (C).

5 To store the stylus, push



Getting Started

CAUTION

- Do not

% M DQQM Mo +9P 9ÜÜâ 9â 9Ðã "2, ð è9â 9Bà½

On-screen Manual

You can access the Reference Manual and the Important Tips on the computer screen after completing the “First-time Operation”.

When you access the Reference Manual and the Important Tips for the first time, the License Agreement of the Adobe Reader may be displayed. Read it carefully and select [Accept] to proceed.

■ Reference Manual

The Reference Manual contains the practical information to help you fully enjoy the computer's performance.

To access the Reference Manual:

Click [start] - [Reference Manual].

Contents

- | | | |
|------------------------------------|---------------------------|---|
| ● Read Me First | ● SD Security | ● DMI Viewer |
| ● Using the Touch Pad | ● Mini Port Replicator | ● Recover Pro |
| ● Using the Touchscreen | ● External Display | ● Troubleshooting (Advanced) |
| ● Display Rotation | ● USB Devices | ● Check the Computer's Usage Status |
| ● Key Combinations | ● Modem | ● Protecting Your Computer from Viruses |
| ● Battery Power | ● LAN | ● Update Windows to its Latest Version |
| ● Computing on the Road | ● Wireless Switch Utility | ● Technical Information |
| ● Standby or Hibernation Functions | ● Wireless LAN | |
| ● Security Measures | ● Setup Utility | |
| ● PC Cards | ● Icon Enlarger | |
| ● SD Memory Card | ● Loupe Utility | |

■ Important Tips

The Important Tips will provide you with the helpful information about the battery and touchscreen. Read to use the battery pack in the optimum condition to obtain longer operation time.

To access the Important Tips:

Double-click  on the desktop.
Important Tips

- Alternatively click [start] - [All Programs] - [Panasonic] - [On-Line Manuals] - [Important Tips].

Handling and Maintenance

Operation Environment

- Place the computer on a flat stable surface. Do not place the computer upright. If the computer is exposed to an extremely strong impact, it may become inoperable.
 - Temperature: Operation: 5 °C to 35 °C {41 °F to 95 °F}
Storage: -20°C to 60 °C {- 4 °F to 140 °F}
 - Humidity: Operation: 30% to 80% RH (No condensation)
Storage: 30% to 90% RH (No condensation)
- Even within the above temperature/humidity ranges, using for a long time in an extreme environment will result in the product deterioration and will shorten the product life.
- Do not place the computer in the following areas, otherwise the computer may be damaged.
 - Near electronic equipment. Image distortion or noise may occur.
 - Near magnets or in magnetic fields.
 - In extremely high or low temperature.
 - As the computer can become hot during operation, keep it away from items that are sensitive to heat.

Handling Cautions

- When carrying the computer:
 - Turn off the computer.
 - Remove all external devices, cables, cards and other protruding things.
 - Do not drop or hit the computer against solid objects.
 - Do not leave the display open.
 - Do not grip the display part.
- When you board an airplane, take the computer with you and never put it in your checked luggage. When using the computer on airplane, follow the airline's instructions.
- When carrying a spare battery, put it in a plastic bag to protect its terminals.
- This computer contains a magnet and magnetic products at the locations circled in the illustration at right. Avoid leaving metallic object or magnetic media in contact with these areas.
- The touch pad is designed to be used with a finger tip. Do not place any object on its surface and do not press down strongly with sharp-pointed or hard objects that may leave marks (e.g., nails, pencils and ball point pens).
- Avoid any harmful substances such as oil from getting into the touch pad. The cursor may not work correctly.
- If the computer is being carried in a soft bag with the battery pack removed, avoid undue pressure on the body of the computer in a crowded place, etc., as this may result in damage to the LCD.



X



■ When using peripheral devices

Follow these instructions and the Reference Manual to avoid any damage to the devices. Carefully read the instruction manuals of the peripheral devices.

- Use the peripheral devices conforming to the computer's specifications.
- Connect to the connectors in the correct direction.
- If it is hard to insert, do not try forcibly but check the connector's shape, direction, alignment of pins, etc.
- If screws are included, fasten them securely.

■ Preventing your computer from unauthorized use via wireless LAN/wireless WAN/Bluetooth

<Only for model with wireless LAN/wireless WAN/Bluetooth>

- Before using wireless LAN/wireless WAN/Bluetooth, make the appropriate security settings such as data encryption.

■ Computrace® Software

Computrace® software tracks your stolen computer.

Perform the following steps before installing Computrace® software.

- Computrace® software is not included or installed in this computer.

CAUTION

- You will be unable to set [Computrace (R) BIOS Module] to [Disable] once you have set to [Enable]. Do not change the setting when not used.
 - Even if you have set [Computrace (R) BIOS Module] to [Enable], this setting may return to [Disable] after repairs to the motherboard, etc. have been made.

NOTE

- Consult Absolute Software Corp. before disposal.
- Refer to the following URL for Computrace® software for installation and available service regions. Note that this service is only available in certain regions.
<http://www.absolute.com>

- 1 Turn on or restart the computer, and press F2 while [Panasonic] boot screen is displayed.**
The Setup Utility starts up.
 - If the password is requested, enter the Supervisor Password.
- 2 Select the [Security] menu, then select [Computrace (R) Sub-Menu] and press Enter.**
- 3 Select [Computrace (R) BIOS Module], and set to [Enable].**
- 4 At the confirmation message, select [Execute] and press Enter.**
- 5 At the reconfirmation message, select [Execute] and press Enter.**
- 6 Press F10.**
At the confirmation message, select [Yes] and press Enter.
The computer restarts.

Maintenance**To clean display (LCD)**

Use the soft cloth included with the computer. (For more information, refer to “Suggestions About Cleaning the LCD Surface” that comes with the soft cloth.)

To clean areas other than the LCD panel and touch pad

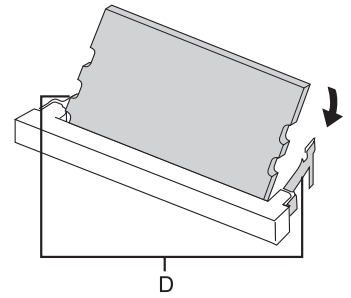
Wet a soft cloth with water or a diluted kitchen cleanser (neutral), wring the cloth out thoroughly, and wipe the dirty area gently. Using a detergent other than a neutral kitchen cleanser (e.g., a weak alkali cleanser) may adversely affect painted surfaces

CAUTION

- Do not use benzene, thinner, or rubbing alcohol since it may adversely affect the surface causing discoloration, etc. Do not use commercially-available household cleaners and cosmetics, as they may contain components harmful to the surface.
- Do not apply water or detergent directly to the computer, since liquid may enter inside of the computer and cause malfunction or damage.

3 Press the RAM module down until the right and left hooks (D) lock into place.

- When pressing down the module, the right and left hooks will open slightly and will return after locking.
- If it is hard to press down the RAM module, do not try forcibly but check the module's direction.



4 Set the cover and battery pack back.

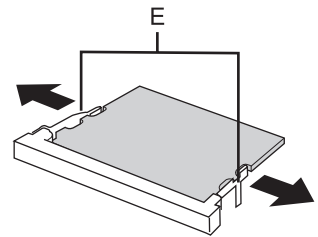
NOTE

- If the RAM module is recognized correctly, the total size of this computer's memory and RAM module memory is displayed on the [Information] menu of the Setup Utility.
If the RAM module is not recognized, turn off the computer and insert it again.

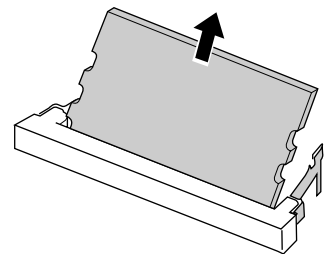
Removing the RAM Module

1 Carefully open the left and right hooks (E).

The RAM module will be raised.



2 Carefully remove the RAM module from the slot.



3 Set the cover and battery pack back.

Hard Disk Backup Function (Recover Pro)

The Recover Pro creates a backup area (storage area) on the hard disk to back up (store) the hard disk data, and restores the backup data to its original location when it is lost or corrupted by operational errors or other factors. You do not need external media or peripheral devices to back up or restore hard disk data on this computer. At purchase, the Recover Pro is not installed. Install using the instructions below.

The Recover Pro cannot back up or restore data correctly if a hard disk problem occurs during data backup or restoring. If an error occurs due to an unexpected malfunction, incorrect operation, or other reason while data is being restored, the hard disk data (data before restoration) may be lost. Matsushita Electric Industrial Co., Ltd. will bear no responsibility for any damage suffered (including loss of data) as a result of the use of this function.


The Recover Pro provides 3 types of backup as follows:

- Quick Backup: Scheduled backup of the updated data
- File Backup: File backup at file save and change
- Complete Backup: Backup of the entire data on the internal hard disk

Here, we will explain the procedures for installation, complete backup (backing up hard disk contents in case Windows cannot be booted), and complete restore (recovering the hard disk data to its condition at the time of the complete backup).

For further information, refer to the software's online manual (➔ page 23).


CAUTION

- All operations should be executed with the AC adaptor connected. Do not turn the power off while operations are in progress. If the power is turned off while installation, backup, or restore operations are in progress, these operations may not function properly, and it may be impossible to start Windows. Also, do not press any keys or slide any switches, including hot keys.
- When restarting the computer, the message "Check file system on C:" will appear. Follow the on-screen instructions. Do not skip the check process.
- Make sure you allow enough space on the hard disk when choosing settings during installation. To change these settings you must reinstall Recover Pro.
To execute Complete Backup reliably, we recommend performing [Typical] installation in the following cases.
 - Hard disk with a single partition
 - Immediately after reinstalling software (when more than half of the entire space of the hard disk is available) (➔ page 25)
- Be sure to use the internal hard disk drive to create the backup area. Never use disk or device other than the internal hard disk drive.
- Some software (security software, backup software, encryption software, or hard disk accessible specific software, etc.) may be incompatible with Recover Pro.
For further information, refer to:
<http://www.phoenix.com/en/Customer+Services/White+Papers-Specs/Recover+Pro/default.htm>
- When using Personal Secure Drive (➔  *Installation Manual* of "Trusted Platform Module (TPM)"), do not execute File Backup for Personal Secure Drive.
- The "Create recovery CD-DVD" function in Recover Pro is designed to help you save complete backup data to CD or DVD. When using the "Create recovery CD-DVD", you can view the complete backup data on the hard disk, but take care to avoid accidentally deleting this data.

Installation

Preparation

- Connect the AC adaptor.

- 1 Log on to Windows as an administrator.**
- 2 Close all programs.**
- 3 Disable anti-virus software.**
- 4 Click [start] - [Run], enter [c:\util\rcvpro\setup.exe], and click [OK].**
The InstallShield Wizard screen appears.
- 5 Click [Next].**
Follow the on-screen instructions.
Carefully read the License Agreement, and click [I accept the agreement.].
 - The computer restarts several times to complete installation.  appears in the notification area.

CAUTION

- During the installation, the screen may become black (no display) momentarily. This is not a malfunction.
 - If you select [Typical] in installation, approximately 40% (max.) of the hard disk drive space is allocated as the backup area.
 - You cannot change the size of backup area after creation.
-

Backs up all data on the hard disk.

Preparation

- Connect the AC adaptor.

- 1 Log on to Windows as an administrator.**
- 2 Close all programs.**

Hard Disk Data Erase Utility

When disposing the computer or transferring the ownership, erase all hard disk data in order to avoid data leakage. Even if you erase the data or initialize the hard disk using normal Windows commands, the data can be read with some special software. Use the hard disk data erase utility to erase the data completely. Note that transferring of the ownership without uninstalling the commercial software will be a violation of the software's license agreement.

CAUTION

- When the hard disk contains the Recover Pro backup data, the Recover Pro backup area is lost as well.

NOTE

- This utility cannot erase data for specific partitions.

Preparation

- Prepare the Product Recovery DVD-ROM (included).
- Prepare the Panasonic CD/DVD drive (optional): CF-VDRRT1M, CF-VDRRT2W, CF-VDRRT3W.
- Remove all peripherals (except for the CD/DVD drive).
- Connect the AC adaptor and do not remove it until hard disk data erase is complete.


- 1 Turn off the computer and connect the CD/DVD drive to the computer.**
- 2 Turn on the computer, and press F2 while [Panasonic] boot screen is displayed.**
The Setup Utility starts up.
 - If the password is requested, enter the Supervisor Password.
- 3 Press F9.**
At the confirmation message, select [Yes] and press Enter.
- 4 Select the [Boot] menu, then select [USB CDD] and press F6 until [USB CDD] is at the top of [Boot priority order].**
- 5 Set the Product Recovery DVD-ROM into the CD/DVD drive.**
- 6 Press F10.**
At the confirmation message, select [Yes] and press Enter.
The computer will restart.
 - If [Enter Password] is displayed during the following procedures, input the Supervisor Password or the User Password.
- 7 Press 2 to execute [2. [Erase HDD]].**
 - To cancel this operation, press 0.
- 8 At the confirmation message, press Y.**
- 9 When [<<< Start menu >>>] is displayed, press Enter.**

Reinstalling Software

- 13 Press F9.**
At the confirmation message, select [Yes] and then press Enter.
The Setup Utility settings excluding the password(s) will return to the default values.
- 14 Press F10.**
At the confirmation message, select [Yes] and press Enter.
The Setup Utility will close, and the computer will restart.
- 15 Perform the first-time operation (→ page 13).**
- 16 Start the Setup Utility and change the settings as necessary.**
- 17 Perform Windows Update.**

Troubleshooting (Basic)/Error Code/Message

Troubleshooting (Basic)

Follow the instructions below when a problem has occurred. There is also an advanced troubleshooting guide in the "Reference Manual". For a software problem, refer to the software's instruction manual. If the problem persists, contact your technical support office. You can also check the computer's status in the PC Information Viewer (→  *Reference Manual* "Check the Computer's Usage Status").

■ Starting Up and Standby and Hibernation Mode

<p>The computer does not power on/ The power indicator or battery indicator is not lit.</p>	<ul style="list-style-type: none"> ● Connect the AC adaptor. ● Insert a fully charged battery. ● Remove the battery pack and the AC adaptor, then connect them again. ● If an additional RAM module has been inserted, remove the RAM module see if the RAM module is the recommended one. (→ page 20) ● When the CPU temperature is high, the computer may not start up to prevent the CPU. Wait until the computer cools down, and then turn the power on. If the computer does not power on even after cooling down, contact your technical support office.
<p>Windows does not start up.</p>	<ul style="list-style-type: none"> ● Remove all peripheral devices. <ul style="list-style-type: none"> • If a device is connected to the USB port, disconnect the device. (→ <i>Reference Manual</i> "Support") to [Disable] in the [Advanced] menu of the Setup Utility. ● If an additional RAM module has been inserted, remove the RAM module see if the RAM module is the recommended one. (→ page 20) ● If the power indicator is lit, slide the power switch for four seconds, then turn on again. ● Using the following procedure, start up in Safe Mode <ol style="list-style-type: none"> ① Turn on the computer, and when the [Panasonic] logo appears, enter the password*¹ if one is set) hold down F8. ② Release the key when the Windows Advanced Recovery Options screen appears, press ↓, select [Safe Mode], then press Enter. Follow the onscreen instructions. <p>*¹ Supervisor Password or User Password</p> <ul style="list-style-type: none"> ● Press F9 in the Setup Utility (→ page 20) to change the Setup Utility settings (excluding the password). If the settings are changed, make the settings again.
<p>There is a beep sound, and either "Extended RAM Module Failed" or "Standard RAM Failed" appears</p>	<ul style="list-style-type: none"> ● If "Extended RAM Module Failed" appears, turn off the computer, check the RAM module, and insert it correctly. ● If "Standard RAM Failed" appears, check the RAM module.
<p>Cannot boot from optional CD/DVD drive</p>	<ul style="list-style-type: none"> ● Make sure that the boot device is set to [CD/DVD Drive] in the Setup Utility. ● Start the Setup Utility <ul style="list-style-type: none"> • [USB Port] and [Laptop Mode] • [USB CDD] is the boot device.
<p>You have forgotten the password.</p>	<ul style="list-style-type: none"> ● Supervisor Password ● Administrator Password <ul style="list-style-type: none"> • If you have a recovery disk and a new password. • If you have a recovery disk and a new password.
<p>Cannot log on to Windows with the SD memory card.</p>	<ul style="list-style-type: none"> ● Through the Windows logon screen, press F8.
<p>"Remove disks or other media. Press any key to restart" or a similar message appears.</p>	
<p>[Executing Backup and Hibernation] screen appears.</p>	

Troubleshooting (Basic)/Error Code/Message

■ Starting Up and Standby and Hibernation Mode

The computer will not automatically enter standby/ hibernation.	<ul style="list-style-type: none"> ● If you connect to a network using wireless LAN function, perform access point settings. (→ Reference Manual "Wireless LAN") ● If you do not use wireless LAN function, turn off wireless LAN function. (→ Reference Manual "Wireless LAN") ● Make sure that you are not using any software that regularly accesses the hard disk.
When logging on (e.g., resuming the computer), audio is distorted.	<ul style="list-style-type: none"> ● Perform the following steps to change the audio settings to prevent audio output. <ol style="list-style-type: none"> ① Click [start] - [Control Panel] - [Sounds, Speech, and Audio Devices] - [Sounds and Audio Devices], and click [Sounds]. ② Set [Windows Logon] and [Windows Logoff] to [(None)].
Cannot resume.	<ul style="list-style-type: none"> ● One of the following operations may have been carried out. <ul style="list-style-type: none"> • In standby mode, the AC adaptor or battery pack was disconnected, or a peripheral was connected or disconnected. • The power switch was slid for four seconds or longer to forcibly turn off the computer. Slide the power switch to turn on the computer. Data not saved will be lost.
Other startup problems.	<ul style="list-style-type: none"> ● Check to see if there was a disk error. <ol style="list-style-type: none"> ① Remove all peripheral devices including an external display. ② Click [start] - [My Computer] and right-click [Local Disk(C:)], and click [Properties]. ③ Click [Tools] - [Check Now]. ④ Select the option in [Check disk options] and click [Start]. ● Start the computer in Safe Mode and check the error details. (Refer to "Windows does not start up" on page 27.)

■ Shutting Down

Windows does not shut down.	<ul style="list-style-type: none"> ● Remove all peripheral devices. ● Wait one or two minutes. It is not a malfunction.
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■ Password

Even after entering the password, [Type your password] is displayed again	<ul style="list-style-type: none"> ● If lights up, press <u>NumLk</u> to disable the ten-key mode, and then input. ● If lights up, press <u>Caps Lock</u> to disable the Caps Lock mode, and then input.
---	--


■ Display

No display.	<ul style="list-style-type: none"> ● The external display is selected. Press <u>F_n + F₃</u> to switch the display. Wait until the display has been switched completely before pressing <u>F_n + F₃</u> again. ● When using an external display, <ul style="list-style-type: none"> • Check the cable connection. • Turn on the display. • Check the settings of external display. ● The display is turned off by the power-saving function. To resume, do not press the direct selection keys, but press any other key like <u>Ctrl</u>. ● The computer entered standby or hibernation by the power-saving function. To resume, slide the power switch. ● The screen may become darker. Press <u>F_n + F₂</u> to make the screen brighter.
The screen is disordered.	<ul style="list-style-type: none"> ● Changing the number of display colors and resolution may affect the screen. Restart the computer. ● Connecting/disconnecting an external display may affect the screen. Restart the computer.
The external display does not work normally.	<ul style="list-style-type: none"> ● If the external display does not support the power saving function, it may not work normally when the computer enters the power saving mode. Turn off the external display.
"Phoenix Always Launcher" was used to change the resolution setting, but that setting is not applicable.	<ul style="list-style-type: none"> ● You cannot set the resolution setting to a value of resolution this computer does not support.

■ Battery

The battery indicator is lights red	<ul style="list-style-type: none"> ● The battery level is very low (the charge is approx. 9% or less). ● Connect the AC adaptor. You can use the computer when the indicator light is orange. If you do not have an AC adaptor, save your data and power off your computer. After replacing the battery pack with a fully charged one, turn your computer on again.
The battery indicator is blinking	<ul style="list-style-type: none"> ● If blinking red: Quickly save your data and power off your computer. Remove the battery pack and disconnect the AC adaptor, then connect them again. If the problem persists, contact your technical support office. The battery pack or charging circuit may be defective. ● If blinking orange: <ul style="list-style-type: none"> ● Battery cannot be recharged temporarily because the internal temperature of the battery pack is outside the acceptable temperature range for recharging. Your computer can be used normally in this state. Once the range requirement is satisfied, charging begins automatically. ● Software applications and peripheral devices (USB devices, etc.) are consuming too much power. Exit the software applications currently running. Once the range requirement is satisfied, charging begins automatically.
The battery indicator is flashing	<ul style="list-style-type: none"> ● The battery is recharging. If [Battery Charging Indicator] in [Main] menu of the Setup Utility is set to [Flashing], the indicator will alternately become lighter and darker.

■ Touch Pad / Touchscreen

The cursor does not work.	<ul style="list-style-type: none"> ● When using the external mouse, connect it correctly. ● Restart the computer using the keyboard. (Press , <u>U</u>, and <u>R</u> to select [Restart].) ● If the computer does not respond to keyboard commands, read “No response” (→ page 30).
Cannot input using the touch pad.	<ul style="list-style-type: none"> ● Set [Touch Pad] to [Enable] in the [Main] menu of the Setup Utility. ● The drivers for some mice may disable the touch pad. Check your mouse's operating instructions.
Cannot input using the touchscreen.	<ul style="list-style-type: none"> ● When mouse drivers are installed (i.e. IntelliMouse), the touchscreen does not work. Reinstall the touchscreen driver.
Cannot point the correct position using the included stylus.	<ul style="list-style-type: none"> ● Perform the touchscreen calibration (→ page 13).

■ Recover Pro

Cannot install Recover Pro	<ul style="list-style-type: none"> ● Recover Pro cannot be installed when four primary partitions exist. Reduce the number of primary partitions to three or less before installation. You can check the number of the primary partitions in the order of [start] - [Control Panel] - [Performance and Maintenance] - [Administrative Tools] - [Computer Management] - [Disk Management]. ● Recover Pro cannot be installed when a backup area is remaining on the hard disk. Try one of the following methods: <ul style="list-style-type: none"> ● If the backup area has complete backup data and you want to restore that data: Follow the “Complete Restore” instructions in “Hard Disk Backup Function (Recover Pro)” (→ page 23) to restore the data. ● To return the computer to its condition at the time of shipment: Reinstall the software (→ page 25). <ul style="list-style-type: none"> ● In step 9, do not select “3. Reinstall Windows to the first partition.” ● If you do not need the data in the backup area, or if it is corrupted, or if does not include complete backup data: <ol style="list-style-type: none"> ① Access [http://www.phoenix.com/en/Customer+Services/Utilities/Recover+Pro+6.htm#Where], and download/install “Cleanup Utility for Recover Pro 6”. ② Delete the backup area using “Cleanup Utility for Recover Pro 6”. In this case, all data in the backup area will be lost.
An unnecessary backup area is present (is left) when Recover Pro is not installed.	<ol style="list-style-type: none"> ① Access [http://www.phoenix.com/en/Customer+Services/Utilities/Recover+Pro+6.htm#Where], and download/install “Cleanup Utility for Recover Pro 6”. ② Delete the backup area using “Cleanup Utility for Recover Pro 6”.

Hardware Diagnostics

If the hardware installed in this computer is not operating properly, you can use the PC-Diagnostic Utility to determine whether or not there is a problem.

If the utility discovers a problem in the hardware, contact your technical support office.

Hardware that can be checked using the PC-Diagnostic Utility

Hardware below can be checked using this utility. (Software cannot be checked.)

- CPU
- Memory
- Hard Disk
- Video Controller
- Sound*¹
- Modem
- LAN
- Wireless LAN*²
- Wireless WAN*³
- Bluetooth*⁴
- USB
- PC Card Controller
- SD Card Controller
- Keyboard
- Touch Pad
- Touchscreen

*¹ When the PC-Diagnostic Utility is running, a loud beep will sound, so do not use headphones at this time. (The beep will not sound if mute is using Windows.)

*² Only for model with wireless LAN

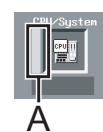
*³ Only for model with wireless WAN

*⁴ Only for model with Bluetooth

Regarding the PC-Diagnostic Utility

NOTE


- Run this utility using the default settings in the Setup Utility. If the Setup Utility or other settings will not allow a hardware to be executed, the hardware icon will be displayed in gray.
- For the hard disk only, you can select standard diagnostic check or extended diagnostic check. When the PC-Diagnostic Utility starts up, it will run the standard diagnostic check. The extended diagnostic check is more detailed, and so requires a longer period of time to run.
- When the video diagnostic check is running, the display may be distorted, and when the audio diagnostic check is running, sounds may be generated from the speaker. These are not malfunctions.
- You can check the status of the diagnostic check by the display color on the left side of the hardware icon (A).
 - Aqua: Not running diagnostic check
 - Alternating blue and yellow: Currently running diagnostic check. The interval of the alternating colors differs depending on the type of diagnostic check currently running. During memory diagnostic check, the display may freeze for a long period of time. Wait until the process is complete.
 - Green: No problems discovered
 - Red: Problems discovered






- We recommend that you use the touch pad for operations. When not using the touch pad, you can operate using the internal keyboard instead.

Operations	Touch pad operations	Internal keyboard operations
Select icon	Place the cursor above the icon	Press <u>S</u> pace and then press <u>R</u> ight <u>L</u> eft <u>U</u> p <u>D</u> own (<u>C</u> lose cannot be selected)
Click the icon	Tap or click (right click cannot be used)	Press <u>S</u> pace above the icon
Complete the PC- Diagnostic Utility and then restart the computer	Click <u>C</u> lose	Press <u>C</u> trl + <u>A</u> lt + <u>D</u> el.

- By clicking the icon, you can execute the following operations:

-  : Start the diagnostic check from the beginning

Hardware Diagnostics



- : Stop the diagnostic check (You cannot restart the check partway through by clicking )
- : Display help (click the screen or press Space to return to the original diagnostic check screen)

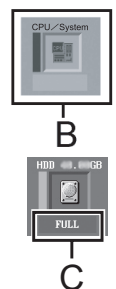
Running the Diagnostic Check

Disconnect any peripheral devices before running the diagnostic check.

- 1 Connect the AC adaptor, and turn on the wireless switch.**
During the diagnostic check, do not remove the AC adaptor, or attach any peripheral devices.
- 2 Turn on or restart the computer, and press F2 while [Panasonic] boot screen is displayed.**
The Setup Utility starts up.
 - If you are using the computer after changing the settings from the status at the time of purchase, we recommend that you make a note of the settings that are changed.
- 3 Press F9.**
At the confirmation message, select [Yes] and press Enter.
- 4 Press F10.**
At the confirmation message, select [Yes] and press Enter.
The computer will restart.
- 5 Press Ctrl + F7 while [Panasonic] boot screen is displayed.**
When the PC-Diagnostic Utility starts up, it will automatically begin the diagnostic check for all hardware components.
 - The touch pad and the internal keyboard cannot be used until alternating blue and yellow colors are displayed on the left side of the hardware icon (→ page 31). If the touch pad does not operate properly, press Ctrl + Alt + Del to restart the computer, or slide the power switch to turn the power off, and then restart the PC-Diagnostic Utility.

NOTE

- Using the following procedure, you can run a diagnostic check on a specified hardware component, or run an extended diagnostic check on the hard disk.
 - ① Click  to stop the diagnostic check.
 - ② Click the icon for the hardware that is not to be checked, so that the icon is displayed in gray (B).
When running a check on the hard disk, clicking the icon once will turn on the extended diagnostic check ("FULL" (C) will be displayed below the icon); click again, and the icon will be displayed in gray.
 - ③ Click  to start the diagnostic check.



- 6 When all the hardware has been checked, confirm the diagnostic check results.**

If the display is red and the message "Check Result TEST FAILED" is displayed, you can assume that there is a problem with the computer's hardware. Confirm which hardware component is displayed as red, and contact your technical support office.

If the display is green and the message "Check Result TEST PASSED" is displayed, the computer's hardware is operating normally. Continue using the computer as it is. If the computer still does not operate properly, reinstall the software. (→ page 25)

NOTE

- If you run a memory diagnostic check after installing a new RAM module (sold separately) and the message "Check Result TEST FAILED" is displayed:
Remove the additional RAM module and run the diagnostic check again. If the message "Check Result TEST FAILED" is still displayed, you can assume that there is a problem with the internal RAM module.

- 7 After the diagnostic check is complete, click  (close), or press Ctrl + Alt + Del to restart the computer.**

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Specifications

Model No.	CF-T5LWETZBM
Pre-installed Software*20	Microsoft® Internet Explorer 6 Service Pack 2 / DirectX 9.0c / Microsoft® Windows® Media Player 10 / Microsoft® Windows® Movie Maker 2.1 / Microsoft® .NET Framework 1.1 SP1/2.0 / Adobe Reader / Intel® PROSet/Wireless Software <Only for models with wireless LAN> / SD Utility / Icon Enlarger / Loupe Utility / Touch Pad Utility / DMI Viewer / PC Information Viewer / Bluetooth™ Stack for Windows® by TOSHIBA <Only for model with Bluetooth> / Display Rotation Tool / Hotkey Settings / Wireless Switch Utility <Only for model with wireless LAN/wireless WAN/Bluetooth> / Economy Mode (ECO) Setting Utility / Battery Recalibration Utility / Infineon TPM Professional Package V2.5 *21 / Recover Pro 6*21
	Setup Utility / Hard Disk Data Erase Utility*22 / PC-Diagnostic Utility*23

■ Wireless LAN <Only for model with wireless LAN>

Data Transfer Rates	IEEE802.11a: 54/48/36/24/18/12/9/6 Mbps (automatically switched)*24 IEEE802.11b: 11/5.5/2/1 Mbps (automatically switched)*24 IEEE802.11g: 54/48/36/24/18/12/9/6 Mbps (automatically switched)*24
Standard Supported	IEEE802.11a/IEEE802.11b/IEEE802.11g
Transmission Method	OFDM system, DS-SS system
Wireless Channels Used	IEEE802.11a: Channels 36/40/44/48/52/56/60/64/149/153/157/161/165 IEEE802.11b/ IEEE802.11g: Channels 1 to 11
RF Frequency Band	IEEE802.11a: 5.18 - 5.32 GHz, 5.745 - 5.825 GHz IEEE802.11b/ IEEE802.11g: 2412 - 2462 MHz

■ Bluetooth™ <Only for model with Bluetooth>

Bluetooth Version	2.0 + EDR
Transmission Method	FHSS system
Wireless Channels Used	Channels 1 to 79
RF Frequency Band	2.402-2.48 GHz

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

*4 A 16,777,216 color display is achieved by using the dithering function.

*5 Display may be impossible using some connected external displays.

*6 When using an external display with a resolution of 2048 x 1536 dots, use a display that supports a 60Hz refresh rate. If an external display that does not support a 60Hz refresh rate is used, images may not be displayed properly.

*7 Some devices cannot be used depending on the port type.

*8 For information on TPM, click [start] - [Run] and input "c:\util\drivers\tpm\README.pdf", and refer to the Installation Manual of "Trusted Platform Module (TPM)".

*9 Operation has been tested and confirmed using Panasonic SD Memory Cards with a capacity of up to 2 GB. The transfer rate using the SD Memory Card slot on this computer is 8 MB per second. (This is a theoretical value, and differs from actual speeds.) The transfer rate is 8 MB per second even if you use an SD Memory Card that supports high-speed transfer rates. Operation on other SD equipment is not guaranteed. This computer is not compatible with MultiMediaCards or SDHC Memory Cards. Do not insert these kinds of cards.

*10 Only a RAM module designed for DDR2 (PC2-4200) can be added (Panasonic : CF-BAW0512U, CF-BAW1024U). JEDEC standard 214 pin Micro DIMM cannot be used. PC2100 / PC2700 172 pin Micro DIMM cannot be used.

If a PC2-3200 RAM module is installed, the main memory processing speed may become slower.

*11 Does not guarantee operation of all USB-compatible peripherals.

*12 <Only for North America>
The AC adaptor is compatible with power sources up to 240 V AC adaptor. This computer is supplied with a 125 V AC compatible AC cord.

20-M-2-1

*13 Varies depending on the usage conditions, or when an optional device is attached. Measured when the power saving function on the USB2.0 USB Root Hub is set to on. (At the time of purchase, the power saving function is activated.) When Economy Mode (ECO) is enabled, the operating time becomes approximately 20% shorter than when it is disabled.

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

*15 Measured using MobileMark™ 2005 (LCD brightness : 60 cd/m²).

*16 Varies depending on the usage conditions, CPU speed, etc. It may take a long time to charge a fully discharged battery.

*17 Approx. 1.5 W when the battery pack is fully charged (or not being charged) and the computer is off.

*18 Rated power consumption.

23-E-1

*19 Average value. May differ depending on models.

*20 Operations of this computer are not guaranteed except for the pre-installed OS.

*21 Must be installed before use.

*22 The Product Recovery DVD-ROM is required.

*23 For startup methods, refer to "Hardware Diagnostics" (→ page 31).

*24 These are speeds specified in IEEE802.11a+b+g standards. Actual speeds may differ.

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For U.S.A.

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DIAL TOLL FREE: 1-800-LAPTOP5

Correspondence requesting product information should be sent to:
Panasonic Computer Solutions Company
3 Panasonic Way, Panazip 2F-5, Secaucus, NJ 07094

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Batteries, CD-ROM (unless factory installed), Port Replicator, Extra Memory Modules and all other Peripherals, Options and Accessories	One (1) Year from Date of Original End User Customer Purchase	Defective Materials or Workmanship

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22-E-1

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