TCM380
Quick Start Guide

Empowered by Innovation **NEC**

Table of Contents

Copyright Notice

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Trademarks

ABOUT YOUR QUICK START GUIDE

This Quick Start Guide will help you set up your system and begin to enjoy the full range of outstanding benefits available from your NEC product.

This guide also contains a section about NEC Service and Support for Assistance. Refer to the section *"NEC UltraCare^{SM} Services",* page 31.

> **Note:** As the NEC computer range is constantly evolving to reflect the very latest developments in computer technology, updates may have been made to the software or hardware detailed in this guide and therefore some of the instructions and pictures may vary slightly from what has been printed.

Text Conventions

To make this guide as easy to read as possible, text is set up as follows. Warnings, cautions and notes have the following format:

> **Note:** Notes give particularly important information about whatever is being described.

> *Caution: Cautions indicate situations that can damage the system hardware or software.*

> *Warning: Warnings alert you to situations that could result in serious personal injury or loss of life.*

Related Documents

In addition to this guide, the following documentation may be shipped with your computer.

- **Notes to Customers (yellow sheet – optional)**: Notes to Customers provide additional information about the computer that was not available at the time the user's guide was printed.

> **Note:** Read these Notes to Customers before getting your system up and running.

- **The Desktop and Thin Client Documentation Library CD**: This CD contains all on-line documentation related to your product.

REGULATORY INFORMATION

European Notice

Products with the CE marking comply with both the Electromagnetic Compatibility Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) – modified by the Directive 93/68/EEC – issued by the European Economic Community.

Compliance with these directives implies conformity to the following European Standards:

- EN55022 (1998+A1:2000+A2:2003): Radio disturbance characteristics

- EN55024 (1998+A1:2001+A2:2003): Immunity characteristics

- EN61000-3-2 (2000+A2:2005): Limitation of harmonic current emissions

- EN61000-3-3 (1995+A1:2001): Limitation of voltage fluctuation and flicker in low-voltage supply system

USA and Canada

Regulatory information Federal Communications Commission (FCC)

Federal Communications Commission Radio Frequency Interference Statement

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 correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna.

- increase the separation between the equipment and the receiver.

- connect the equipment into an outlet that is on a circuit different from the receiver.

- consult the dealer or an experienced radio/TV technician for help.

NEC's system RFI and Radiated Immunity tests were conducted with NEC supported peripheral devices and NEC shielded cables, such as those you receive with your system. Changes or modifications not expressly approved by NEC could void the user's authority to operate the equipment. To comply with the limits for an FCC Class B computing device, always use shielded signal cables and the power cord supplied with this unit.

Modifications to the Product

CE Marking

NEC Computers S.A.S. cannot be held responsible for modifications made by the User and the consequences thereof, which may alter the conformity of the product with the CE Marking.

Radio Frequency Interference

The manufacturer is not responsible for any radio or TV interference caused by unauthorised modifications to this equipment.

Connections and Remote Earths

PELV (Protected Extra Low Voltage)

To ensure the extra-low voltage integrity of the equipment, only connect equipment with mains-protected electrically-compatible circuits to the external ports.

SELV (Safety Extra Low Voltage)

Every input and output of this product is classified as Safety Extra Low Voltage.

Remote Earths

To prevent electrical shock, connect all local (individual office) computers and computer support equipment to the same electrical circuit of the building wiring. If you are unsure, check the building wiring to avoid remote earth conditions.

Building Supply

Only connect the equipment to a building supply that is in accordance with current wiring regulations in your country. In the U.K., those are the IEE regulations.

Cables

- The EMC performance of the system is guaranteed only if the cable and interface use efficient shielding.
- The use of shielded interface cable is required for USB, IEEE1394, serial, printer, game, analogue or digital audio/ video, Ethernet LAN, PS/2, TV or FM antennas, and generally all high speeds cables' interfaces.
- Only Ethernet LAN cables can have length exceeding 3 meters.
- For Ethernet LAN cable, use FTP shielded cables only (cat ‡ 5).

Power Cord

Warning: Do not hold the power plug with a wet hand.
Do not disconnect/connect the plug while your hands are wet. Failure to follow this warning may cause an electric shock.

Use the authorized power cord only.

Use only the power cord that comes with your equipment. Using an unauthorized power cord may cause a fire when the electric current exceeds the rated flow.
Also, observe the following to prevent an electric shock or fire caused by a damaged cord.

- Do not stretch the cord harness.
- Do not alter, modify, or repair the power cord.
- Do not bend the power cord.
- Do not twist the power cord.
- Do not step on the power cord. Keep chemicals away from the power cord.
- Do not bundle power cords.
- Do not place any object on the power cord.
- Do not pinch the power cord.
- Do not secure the power cord with staples or equivalents.

Do not use the attached power cord for any other devices or usage.

The power cord that comes with your equipment is designed to connect with this equipment, and its safety has been tested. Do not use the attached power cord for any other purpose. Doing so may cause a fire or an electric shock.

Do not pull the cord harness to disconnect the power cord.

Hold the connector of the power cord and pull it straight. Pulling the cord harness or applying excess force to the connector may cause a damage to the cable, resulting in a fire or an electric shock.

Replacing the Power Cord

Replace the power cord if it gets damaged. Contact your dealer for an exact replacement. The replacement must be of the same type and voltage rating as the original cord. Refer to the information indicated on the original power cord.
The plug must display an international agency approval marking. The cord must be suitable for use in the end-user country. Consult your dealer or the local electrical authorities if you are unsure of the type of power cord to use in your country.

Extension Cord

If an extension cord is used with this product, make sure that the sum of the ampere ratings of all the products plugged into the extension cord does not exceed the extension cord's ampere rating. Also, make sure that total amperage of all the products plugged into any one outlet at any one time does not exceed 15 amperes.

Safety Notices

1. Read all of these instructions.

2. Save these instructions for future use.

3. Follow all warnings and instructions marked on the products.

Warning - Hazardous Voltage!

Hazardous voltage is present inside your computer when it is connected to an AC supply even when the computer's power switch is off. Exposure to Hazardous Voltage could cause personal injury. To avoid risk of injury, contact an Authorised Service Provider for proper installation of optional hardware devices.

Warning - Avoid Electrostatic Discharge!

Circuit cards and integrated circuits can be easily damaged by static electricity. To reduce risk of damage, store them in protective packaging whenever they are not installed in your system.

Before you install or remove memory modules, video memory, disk drives, circuit cards or other devices, protect them from static electricity. To do so, make sure your computer's power switch is **OFF**. Then, unplug the computer's AC power cord. Before picking up the device you want to install, you will need to wear an antistatic wrist strap (available at electronic supply stores). Be sure to connect the wrist strap to an unpainted metal portion of the computer chassis.

As an alternative, you can dissipate electrostatic buildup by touching an unpainted metal portion of the computer chassis with one hand. Then touch the device you are installing with the other hand, and maintain continuous contact with it until it is installed in the computer.

Epilepsy Warning

Some people are susceptible to epileptic seizures or loss of consciousness when exposed to certain flashing lights or light patterns in everyday life. Such people may have a seizure while watching television or computer images. This may happen even if the person has no medical history of epilepsy or has never had any epileptic seizures. If you or anyone in your family has ever had symptoms related to epilepsy (seizures or loss of consciousness) when exposed to flashing lights, consult your doctor prior to using your computer.

If you experience any of the following symptoms: dizziness, blurred vision, eye or muscle twitches, loss of consciousness, disorientation, any involuntary movement or convulsion while using your computer, **IMMEDIATELY** discontinue use and consult your doctor.

Virus Warning

We guarantee that this product is 100% virus free. Depending on your configuration, an antivirus application is available on your computer. Refer to your on-line documentation for more information.

Replacing Batteries

A lithium battery maintain system configuration information In the event that the battery fails to maintain system configuration information, we recommend that you replace the battery. For battery replacement information, refer to your on-line documentation. For battery disposal, refer to "*Battery Disposal*", page 14.

> *Warning: There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same type recommended by the manufacturer.*

Using this Equipment

Do not disassemble, repair, or alter the equipment.

Never attempt to disassemble, repair, or alter the equipment on any occasion other than described in this manual. Failure to follow this instruction may cause an electric shock or fire as well as malfunctions of the equipment.

Chassis Cover Removal and Replacement

Before removing the chassis cover to service or modify the equipment, you must disconnect all power and modem cords (and remove the main battery in portable computers).

Replace the chassis cover and secure it with the screws before plugging in the power cable and turning it on.

Avoid contact with the equipment during thunderstorms.

In thunderstorm conditions, make sure that you disconnect your modem from the telephone line or your TV port from the aerial socket. A lightning strike to nearby telephone lines or an aerial could damage your modem, TV card or even your whole computer system. Please note that the product warranty does not apply if damage to your computer is the result of a lightning strike.

Excessive sound pressure from earphones and headphones can cause hearing loss.

Adjustment of the equalizer to other values than the neutral or centre position may increase the earphones and headphones output voltage and therefore the sound pressure level.

Other influencing factors relevant for the earphones/headphones output and which are specified by the manufacturer (e.g. operating system, other equalizer software, firmware and drivers) may increase the earphones and headphones output voltage and therefore the sound pressure level.

Care and Handling

Use the following guidelines to properly handle and care for your computer.

- Protect the computer from extremely low or high temperatures. Let the computer warm (or cool) to room temperature before using it.

- Keep the computer away from magnetic forces.

- Keep the computer dry. Do not wash the computer with a wet cloth or pour fluid into it. Do not use this product near water.

- Unplug this product from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

- Protect the computer from being bumped or dropped. Do not place this product on an unstable surface. If the product should fall, it may become seriously damaged and, more importantly, may cause injury to the user.

- Check the computer for condensation. If condensation is present, allow it to evaporate before switching on the computer.

- Keep the computer away from dust, sand, and dirt.

- Never push objects of any kind into this product through cabinet slots, as they may touch dangerous voltage points or cause short circuits, risking the possibility of a fire or electric shock. Never spill liquid of any kind onto the product.

Do not attempt to service this product yourself. If you have the slightest suspicion that the product is not in proper working order, unplug the unit and seek assistance from qualified service personnel, especially under the following conditions:

- When the power cord or plug is damaged or frayed.

- If liquid has been spilled onto the product, or if the product has been exposed to water.

- If the product has been dropped or the cabinet has been damaged.

- If the product exhibits a distinct deterioration in performance, indicating a need for service.

If the product does not operate normally when the operating instructions are followed, adjust only those controls that are covered by the operating instructions, since improper adjustment of other controls may result in further damage or complications.

Safety Notices for Notebook Computers

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AC Adapter

You must unplug the AC adapter cord to disconnect the equipment from the power supply. In that aim, the socket-outlet should be installed near to the equipment and should be easily accessible.

Under no circumstances should the user attempt to disassemble the AC adapter. The AC adapter has no user-replaceable parts. Inside the AC adapter are hazardous voltages that can cause serious personal injury. A defective AC adapter must be returned to your dealer.

The AC adapter is intended for use with a computer and meets EN60950 standards.

- Do not cover or place objects on the AC Adapter. Keeping the adapter clear of objects lets the adapter cool properly during use.

- The AC adapter is intended for use in a protected environment.

- Only use the AC adapter that comes with your system. Although other adapters may look similar, using them can damage your system.

Power Cable

- If this equipment requires a 3-wire, grounded power cord, plug the cord into a grounded 3-pin-outlet. The cord length must not exceed 2.5 metres. To prevent electrical hazards, do not remove or disable the ground contact on the power cord.

- In Europe, the plug must be rated for 250 VAC, 10 amp minimum.

- In the USA. and Canada, the plug must be rated for 125 VAC, 10 amp minimum.

Heat Build-Up

The AC adapter and the underside of the computer can become hot after prolonged use. Sustained physical contact with either should be avoided.

Glass Display

Take care when handling, cleaning transporting or storing the computer. Do not:

- Press against, bend or twist the screen.

- Close the lid with anything on the keyboard.

- Transport in a container with a shard, hard object against the lid.

Any of the above actions may result in damage to the screen.

Air Circulation - System Cooling

Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings should never be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surfaces. This product should never be placed near or over any object which produces heat. This product should not be placed in a built-in installation unless proper ventilation is provided.

Caution: Storing your notebook computer in a low-airflow environment (e.g. a closed briefcase) while it is running may damage it or cause fire.

802.11x Wireless LAN Regulations

Note: Due to the evolving state of regulations and standards in the wireless LAN fields (IEEE802.11 and similar standards), the information provided here is subject to change. NEC Computers S.A.S. assumes no responsibility for errors or omissions in this document.

Wireless Network Device and Your Health

The wireless network device installed in your system, like other radio devices, emits radio frequency electromagnetic energy. The level of energy emitted by this device, however, is less than the electromagnetic energy emitted by other wireless devices such as mobile phones. The wireless network device operates within the guidelines found in radio frequency safety standards and recommendations. 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 the wireless network devices may be restricted by the proprietor of the building or responsible representatives of the applicable organization. Examples of such situations include the following:

• Using the wireless network device on board air planes, or

• Using it in any other environment where the risk of interference with other devices or services is perceived or identified as being harmful.

If you are uncertain of the policy that applies to the use of wireless devices in a specific organization or environment (an airport, for example), you are encouraged to ask for authorization to use the wireless network device before you turn it on.

European Declaration of Conformity

This equipment complies with the essential requirements and other relevant provisions of the European Union directive 1999/5/EC.

The wireless network device must be used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. NEC Computers S.A.S. is not responsible for any radio or television interference caused by unauthorized modification of the devices included with the network connection kit, or the substitution or attachment of connecting cables and equipment other than that specified by NEC Computers S.A.S. The correction of interference caused by such unauthorized modification, substitution or attachment is the responsibility of the user. NEC Computers S.A.S. and its authorized resellers or distributors are not liable for any damage or violation of government regulations that may arise from the user failing to comply with these guidelines.

Local Restriction of 802.11a, b, g, n Radio Usage

Due to the fact that the frequencies used by 802.11a, 802.11b, 802.11g and 802.11n wireless LAN devices may not yet be harmonized in all countries, 802.11a, 802.11b, 802.11g and 802.11n products are designed for use only in specific countries, and are not allowed to be operated in countries other than those listed in below:

Algeria, Anguilla, Argentina, Aruba, Antigua, Bahamas, Bahrain, Belize, Bermuda, Bolivia, Brazil, Burkina Faso, Cayman Islands, Cameroon, Central African Republic, Chad, Chile, Colombia, Congo, Costa Rica, Cuba, Curacao, Cyprus, Dominica, Dominican Republic, Ecuador, Egypt, Equatorial Guinea, EU R&TTE countries[1], Gabon, Ghana, Grenada, Guatemala, Guinea, Guinea-Bissau,

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1.*EU R&TTE countries: Andorra, Austria, Belgium, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Republic of Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxemburg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.*

Guyana, Haiti, Israel, Ivory Coast, Jamaica, Jordan, Kenya, Kuwait, Lebanon, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Niger, Oman, Palestine, Paraguay, Peru, Qatar, Saudi Arabia, St. Barths, St. Kitts, St. Lucia, St Maarten, St.Vincent, Senegal, South Africa, Surinam, Tanzania, Togo, Trinidad, Tunisia, Turks & Caicos, Turkey, United Arab Emirates, Uruguay, Venezuela, Yemen.

As a user of these products, you are responsible for ensuring that the products are used only in the countries for which they were intended and for verifying that they are configured with the correct selection of frequency and channel for the country of use. Any deviation from permissible settings and restrictions in the country of use could be an infringement of national law and may be punished as such.

Bluetooth® Regulations

Bluetooth Device and Your Health

The bluetooth device installed in your system, like other radio devices, emits radio frequency electromagnetic energy. The level of energy emitted by this device, however, is less than the electromagnetic energy emitted by other wireless devices such as mobile phones. The bluetooth device operates within the guidelines found in radio frequency safety standards and recommendations. 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 the bluetooth devices may be restricted by the proprietor of the building or responsible representatives of the applicable organization. Examples of such situations include the following:

• Using the bluetooth device on board air planes, or

• Using it in any other environment where the risk of interference with other devices or services is perceived or identified as being harmful.

If you are uncertain of the policy that applies to the use of bluetooth devices in a specific organization or environment (an airport, for example), you are encouraged to ask for authorization to use the bluetooth device before you turn it on.

European Declaration of Conformity

This product is in compliance with the essential requirements and other relevant provisions of the European Directive 1999/5/EC.

The bluetooth device must be used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. NEC Computers S.A.S. is not responsible for any radio or television interference caused by unauthorized modification of the devices included with the network connection kit, or the substitution or attachment of connecting cables and equipment other than that specified by NEC Computers S.A.S. The correction of interference caused by such unauthorized modification, substitution or attachment is the responsibility of the user. NEC Computers S.A.S. and its authorized resellers or distributors are not liable for any damage or violation of government regulations that may arise from the user failing to comply with these guidelines.

ENVIRONMENTAL INFORMATION

Lead-free Product

NEC eliminated toxic substances like lead from its electronic equipment. A lead-free equipment helps protect your health and promotes environmentally sound recovery and disposal of waste from electrical and electronic equipment. NEC complies with the European Community stringent **RoHS Directive** mandating restrictions on hazardous substances in electrical and electronic equipment. With NEC, you can be confident that your electronic equipment does not harm the environment.

Battery Disposal

Ultimate disposal of the batteries should be handled according to all national laws and regulations. Do not place used batteries in your regular waste: the incineration, landfilling or mixing of batteries with the municipal solid waste stream is prohibited by law in most countries. Contact your local waste management officials for other information regarding the environmentally sound collection, recycling, and disposal of the batteries.

Product Disposal

The Waste Electrical and Electronic Equipment (WEEE) Directive requires that used electrical and electronic products must be disposed of separately from normal household waste in order to promote reuse, recycling, other forms of recovery and to reduce the quantity of waste to be eliminated with a view to reducing landfill. This includes accessories such as a keyboard, mouse, remote control, speakers, etc. When you dispose of such products, please follow the agreement made between you and NEC and/or your distributor.

For information on the NEC recycling program, refer to the NEC Web site at:

http://www.nec-eco.com

INSTALLING YOUR MOBILE THIN CLIENT

Getting to Know Your Mobile Thin Client

Note: Detailed information about your Mobile Thin Client is provided on labels on the packaging, the AC adapter or the battery.
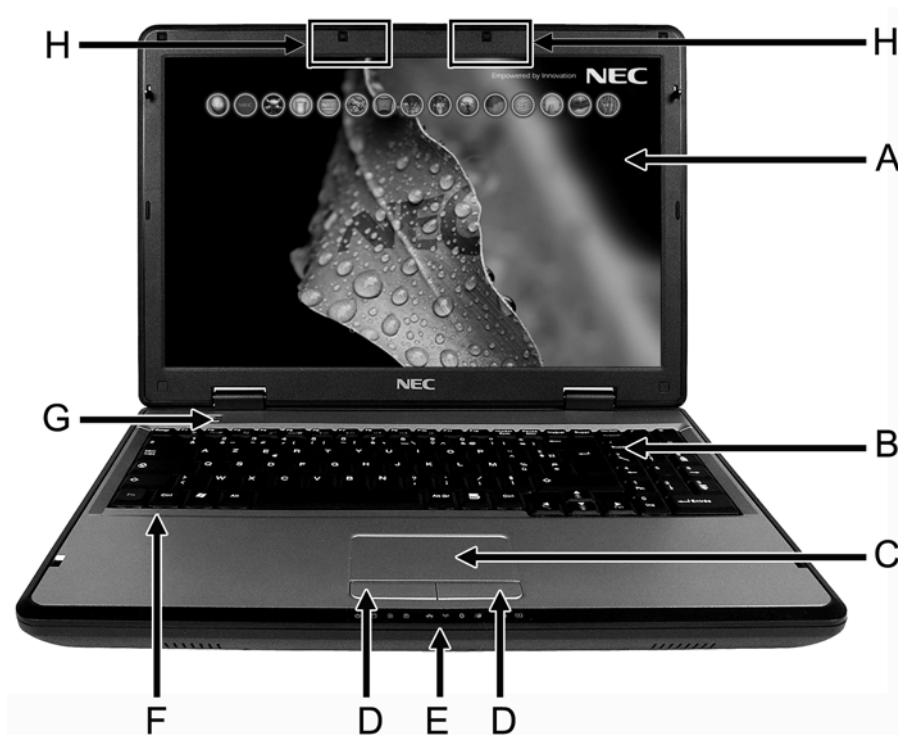
Figure 1: Front View Open

A: *LCD panel*	**B:** *Keyboard*	**C:** *Touchpad*
D: *Touchpad buttons*	**E:** *Status LEDs*	**F:** *Internal microphone*
G: *Power button*	**H:** *Wireless antennae*	

LCD Panel
Colour LCD panel that can be adjusted for a comfortable viewing position.

Keyboard

Function Keys

Twelve function keys, F1 through F12, are available on the keyboard. These keys work together with the Fn key to activate special functions. Some of these keys (printed in blue) are pre-programmed with dual functions.

Fn+F1	Activates/deactivates the Bluetooth® feature[a] (on some models only).	Fn + F6	Decreases LCD brightness.
Fn+F2	Toggles between wireless and 3G features.[b]	Fn + F7	Increases LCD brightness.
Fn + F3	Activates/deactivates the touchpad	Fn + F8	Decreases volume.
Fn + F4	Activates/deactivates suspend mode.	Fn + F9	Increases volume.
Fn + F5	Toggles between LCD/CRT display.	Fn + F10	Mutes volume.

a. *The wireless / Bluetooth® button must be set to On. Refer to "Wireless LAN/Bluetooth® Button", page 19.*

b. *The wireless / Bluetooth® button must be set to On before activating the wireless feature and set to Off before activating the 3G feature. Refer to "Wireless LAN/Bluetooth® Button", page 19.*

Touchpad

Works like a standard computer mouse. Simply move your fingertip over the touchpad to control the position of the cursor. Use the left and right selection buttons below the touchpad to select menu items.

Note: Moving your finger along the right edge of the touchpad will control the scrollbar and scroll the window that has the focus vertically. Moving the finger on the bottom of the touchpad scrolls in horizontal direction.
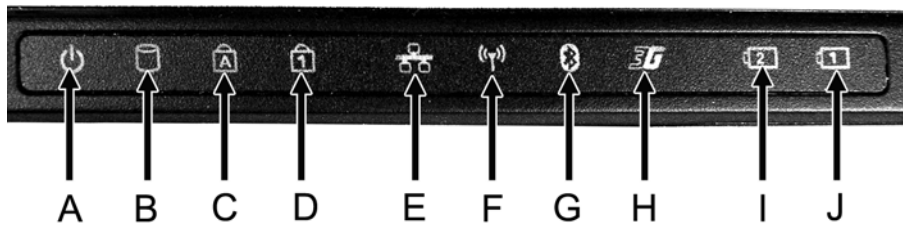
Status LEDs

Figure 2: Status LEDs

A	Power status LED	off	Computer is turned off.
		lights green.	Computer is turned on.
		flashes green.	Computer is in a suspend mode.
B	Flash drive access LED	lights green.	The system is accessing the flash drive.

C	Caps Lock LED	lights green.	Caps Lock is active.
D	Num Lock LED	lights green.	Num Lock is active.
E	LAN LED	lights green	Computer is connected to a Local Area Network (LAN).
F	Wireless LAN status LED	blinks green slowly	The wireless LAN feature is enabled. Refer to "*Wireless LAN/Bluetooth® Button*", page 19.
		blinks green rapidly	The computer is connected to a wireless network but data are being transferred.
		lights green	The computer is connected to a wireless network.
G	Bluetooth® status LED	lights green[a]	The Bluetooth® feature is enabled and a connection can be established or a connection is established. Refer to "*Wireless LAN/Bluetooth® Button*", page 19.
H	3G status LED	Refer to the 3G card's documentation for more information.	
I & J	Battery status LEDs	lights green.	The battery is fully charged.
		lights orange.	The battery is charging.
		blinks orange.	The battery is almost completely discharged.

a.*Only if a Bluetooth®card is installed.*

Internal Microphone

Allows you to record mono sound with your computer.

Power Button

Press it to power on/off the system.

Wireless Antennae

Wireless antennae send and receive signals from the wireless devices installed in your Mobile Thin Client. These antennae are not visible from the outside of the computer.

Note: The computer display panel must be open, and the antennae free from obstruction before a wireless connection can be established.

Caution: The wireless devices installed in this Mobile Thin Client have been designed so that they do not exceed the limits for exposure to radio frequency recommended by the international guidelines (ICNIRP). SAR (Specific Absorption Rate) is the rate at which energy is absorbed in body tissues and it is strongly dependent on the separation distance between the high-frequency source (antennae) and the body. The wireless devices meet international guidelines for exposure to radio frequency radiation only if the distance between your body and the antennae is at least a few centimetres.

Specific wireless regulatory notices apply to each country or region. Refer to *"Bluetooth® Regulations"*, page 13 and to *"802.11x Wireless LAN Regulations"*, page 11.
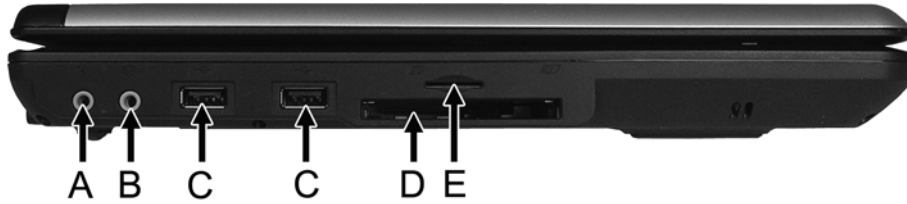

Figure 3: Left View

A: *Microphone-in connector* **B:** *Line-out connector* **C:** *USB ports (x2)*

D: *Express Card slot* **E:** *Sim card slot*

Microphone-in Connector

Allows you to connect an external microphone for monophonic recording or amplification through the unit.

Line-out Connector

Lets you plug in stereo headphones or external speakers.

USB 2.0 Ports

Two Universal Serial Bus (USB) ports allow you to connect USB-equipped peripheral devices (for example, printers, monitors, scanners) to your computer.

Note: The USB port constantly supplies 5 V power to the external USB devices even when the system is in a power off state. This allows external USB devices to be charged at any time without turning on the system. To prevent draining the battery power when the system is powered off, disconnect the external USB devices when not in use.

Express Card Slot

You can add hardware capabilities such as memory, wired and wireless communications cards and security devices by simply inserting these modules into this slot. It supports two form factors: Express Card/34 (34 mm wide) and Express Card/54 (54 mm wide, in an L-shape) — the connector is the same width (34 mm) on both. Standard cards are 75 mm long (10.6 mm shorter than CardBus) and 5 mm thick, but may be thicker on sections that extend outside the standard form factor — for antennas, sockets, etc.
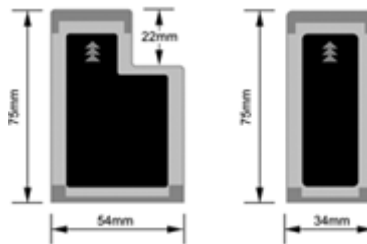
Inserting an Express Card

1. Align the card so that the connector points towards the slot and the arrow or the label shows on the top face of the card.

2. Slide the card into the slot and press firmly until it is completely seated in its connector.

3. Most Express cards are automatically detected and the appropriate device driver is installed. The system may require to use the manufacturer's drivers. In that case insert the CD shipped with the Express card.

The computer beeps twice to indicate a successful installation.

Removing an Express Card

Press on the card to eject it.

Sim Card Slot

Allows you to insert a 3G card. For more information, refer to the 3G card's documentation.

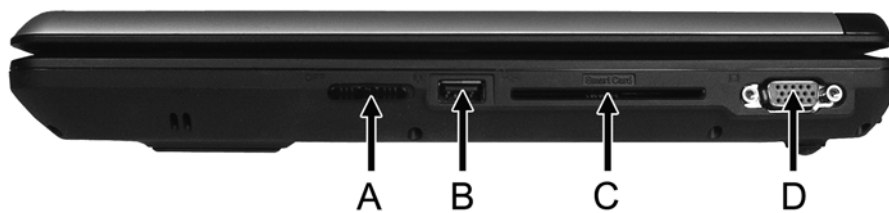> ⚠️ **Caution:** *For the 3G feature to function, the wireless/Bluetooth® button must be on the* **OFF** *position.*

Figure 4: Right view

A: *Wireless LAN/Bluetooth® button*	**B:** *USB port*
C: *Smart card reader*	**D:** *VGA port*

Wireless LAN/Bluetooth® Button

> **Note:** The Bluetooth® feature only works on Mobile Thin Clients equipped with a Bluetooth® card.

Slide the button to the right to enable the wireless LAN/Bluetooth® features. Refer to the operating system's guide for more information about how to configure a wireless LAN or a Bluetooth® connection.

> **Note:** If you do not want both wireless and Bluetooth® features to function simultaneously, use the function keys to activate/deactivate them separately. Refer to "Function Keys", page 16.

Smart Card Reader

Security feature for user authentication.

VGA Port

Use this 15-pin port to attach an external monitor to your Mobile Thin Client.

Figure 5: Rear view

A: *10/100 base-T LAN port*   **B:** *Security lock slot*   **C:** *AC power port*

LAN Port

Allows you to connect your Mobile Thin Client to a local area network. Connection speed is up to 100 Mbps.

Security Lock Slot

Allows you to attach an antitheft device to your Mobile Thin Client.

AC Power Port

Lets you attach the Mobile Thin Client to the AC power source using the AC adapter that comes with your system.

Caution: Only use the AC adapter and the 3-pin power cord that come with your Thin Client. Although other adapters and power cords look similar, using them can damage your system.
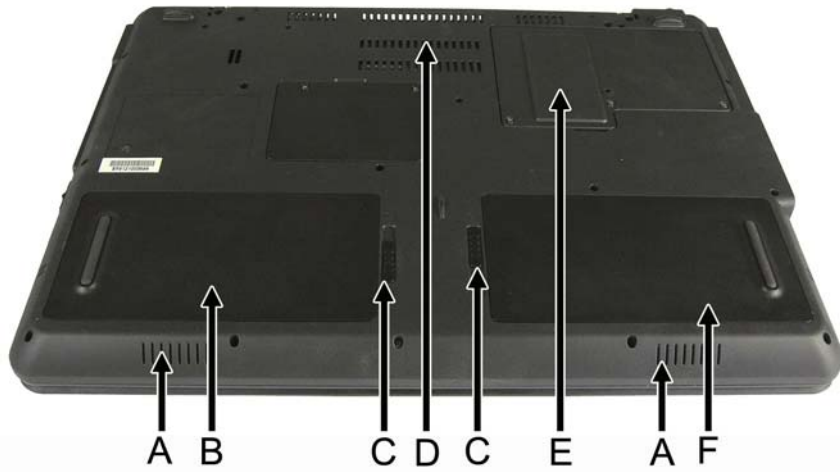

Figure 6: Bottom View

A: *Speakers*   **B:** *Battery bay 1*   **C:** *Battery release latches*

D: *Air openings*   **E:** *Memory bay*   **F:** *Battery bay 2*

Caution: *Be aware that your system may radiate heat when used for an extended period of time.*

Speakers

Provide stereo sound for your multimedia presentations or listening pleasure.

Air Openings

Caution: *Do not block the fan vents while the Mobile Thin Client is in use.*

Battery Bays and Battery Release Latches

Refer to "*Battery Pack*"*,* page 21.

Caution: *You computer is shipped with a dummy battery pack. When the second battery is not installed, you must install the dummy battery pack in the empty bay.*

Setting Up Your Mobile Thin Client

1. Before you begin, review "*Regulatory Information*", page 4 and "*Safety Notices*", page 7.
2. Remove carefully the contents of the container and keep the carton and the packing materials in case you need to send the Mobile Thin Client for service.
3. Install the battery(ies). Refer to "*Replacing the Battery*"*,* page 24.
4. Connect the AC adapter cable to the power port *(C in Figure 5,* page 20*)* of the system.
5. Plug one end of the power cable into the adapter and connect the other end into a wall outlet.

Caution: *When using the AC adapter, make sure the power source falls within the system's compatible range of 100-240 volts AC. Never use the AC adapter if the voltage falls outside of this range (watch for this when travelling to other countries).*

6. LAN (if applicable)

   If applicable, connect the LAN cable to the LAN port *(A in Figure 5,* page 20*)*.
7. Raise the LCD panel.
8. Briefly press on the power button *(G in Figure 1,* page 15*)* to power on your system.

Removing and Replacing Components

There are no user-replaceable components inside the Mobile Thin Client. If the warranty of your system offers you this possibility (refer to "*NEC UltraCare^{SM} Services*", page 31), contact the technical support line.

Battery Pack

Note: Although the battery is fully charged at the factory, transit and shelf time may reduce the initial battery charge. We recommend that the first time you use your system, you connect it to AC power using the AC adapter. This also recharges your battery(ies). For more information, refer to "*Initial Use or After Prolonged Storage Period*"*,* page 22.

Battery Precautions

To prevent accidental battery ignition, rupture, or explosion, adhere to the following precautions.

Warning: T*here is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.*

To avoid personal injury and property damage, read these battery precautions on handling, charging and disposing batteries.

- *Keep the battery away from heat sources including direct sunlight, open fires, microwave ovens, and high-voltage containers. Temperatures over 60°C may cause damage.*

- *Do not drop or impact the battery.*

- *Do not disassemble the battery.*

- *Do not solder the battery.*

- *Do not puncture the battery.*

- *Do not use a battery that appears damaged or deformed, has any rust on its casing, is discoloured, overheats, or emits a foul odour.*

- *Keep the battery dry and away from water.*

- *Keep metal objects away from battery terminals. Metal objects in contact with the connectors can cause a short circuit and damage.*

If the battery leaks:

- *If the battery leaks onto skin or clothing, wash the area immediately with clean water. Battery fluid can cause a skin rash and damage fabric.*

- *If battery fluid gets into eyes,* **DO NOT** *rub; rinse with clear water immediately and consult a doctor.*

- *Take extra precautions to keep a leaking battery away from fire. There is a danger of ignition or explosion.*

Conserving Battery Power

Some operations like the ones listed below significantly reduced battery performance:
- using USB devices, wireless communication devices, or Express cards,

- defining display settings to high-brightness,

While running on battery, it is important to be aware of the simple things you can do to extend the life of the system's battery.
- Turn down the screen brightness. Refer to "*Keyboard*", page 16.

- If not used, disable the wireless LAN/Bluetooth® features. Refer to "*Wireless LAN/Bluetooth® Button*", page 19.

- Remove the Express card from its slot if not used. Refer to "*Express Card Slot*", page 18.

- Avoid using an external mouse, use the integrated touchpad.

- Disconnect any USB devices.

- Close the programs you are not using.

How to Prolong Lithium-Based Batteries

A lithium-ion battery in use typically lasts between 18-24 months. Follow the below recommendations to prolong your battery life cycle.

Initial Use or After Prolonged Storage Period

Your new battery comes in a discharged condition and must be charged before use. Upon initial use (or after prolonged storage period) the battery may require two or three charge/discharge cycles before achieving maximum capacity. To do so, unplug the AC adapter, turn off power management features (through BIOS Setup), and turn on the system. Once the battery is discharged (maximum 95% depth-of-discharge recommended), plug in the AC adapter and recharge the battery (without interruption).

Calibrating Regularly the Battery

Batteries should be calibrated by applying a deliberate full discharge once every month. Refer to "*Initial Use or After Prolonged Storage Period*", page 22 for the procedure. If ignored, the fuel gauge will become increasingly less accurate and in some cases, cut off the device prematurely.

Charging Lithium-ion Batteries

Except in situations described in "*Initial Use or After Prolonged Storage Period*", page 22 and "*Calibrating Regularly the Battery*", page 23, avoid full discharge. The battery lasts longer with partial rather than full discharges. It is recommended not to discharge it below 20%.

Note: Under normal conditions, a lithium-ion battery provides 500-800 charge/discharge cycles. Two 50% charges correspond to a single charge cycle (and not to two charge cycles). Therefore, you can charge the battery more often; this will not reduce the battery life cycle.

Precautions for Recharging the Battery

Rechargeable batteries can be used under a wide temperature range. But this does not automatically permit charging at these extreme conditions. The maximum allowable charge temperatures are between 0 °C and 45 °C (32 °F – 113 °F), 20 °C being the optimum one. Temperatures out of this range may prevent charge or cut off the charge prematurely.

Storing Lithium-ion Batteries

If you do not plan on using the battery for a month or more, we recommend storing it in a clean, dry, cool place away from heat and metal object. Ensure that it is wrapped protectively and nothing will be dropped on it.

As a fully discharged battery may turn off its protection circuit, it is recommended to store it at 40% charge (best by charging it than discharging it.) The battery should be re-installed every 3-4 weeks and allowed a full discharge (refer to "*Initial Use or After Prolonged Storage Period*", page 22.) Leaving a battery in storage for longer than this without using could cause the battery to fully discharge as the circuitry of the battery itself consumes power and then, may cause failure.

Note: Short battery life being mainly caused by heat rather than charge/discharge patterns, cool storage (between 0 °C –20 °C) is more important than state of charge.

Battery and AC Power

Should the battery be removed from the computer when running on AC power? Leaving a battery in a computer while using an electrical outlet **for long periods of time** may reduce the life cycle of the battery because of heat. In that case, remove the battery from the computer and store it according to the precautions in "*Storing Lithium-ion Batteries*", page 23.

Caution: When the battery is removed from the computer while using an electrical outlet, the automatic battery backup is no longer functional and unsaved work will be lost.

Note: When re-installing the battery after a long period of time, do not forget to clean the battery contacts as well as the connection terminals inside the battery compartment with a cotton swab and alcohol. This helps maintain a good connection between the battery and your computer.

When to Change the Battery

The following symptoms indicate that battery life is nearing an end. Discard batteries that display these symptoms:

• shorter work times

• discolouration, warping

• hot to the touch

• strange odour

Replacing the Battery
Handling the Battery

Review the following before handling the system battery and read the section about "*Battery Pack*", page 21.

Caution: Use the battery only in the Thin Client for which it is designed. Mixing other system's batteries, other manufacturer's batteries, or using a combination of very old and new batteries can deteriorate battery and equipment performance.

Warning: **To prevent accidental battery ignition or explosion, adhere to the following:**
  - **Keep the battery away from extreme heat.**
  - **Keep metal objects away from the battery terminals to prevent a short circuit.**
  - **Make sure the battery is properly installed in the battery bay.**
  - **Read the precautions printed on the battery.**

Installing the Battery in your System

Caution: Be sure to save your data before replacing the battery pack or connecting the AC adapter. Failure to do so can result in data loss.

1. Save your files, exit all applications, and turn off system power.
2. Close the LCD panel and turn the system over.
3. Slide the battery release latch to the unlock position until the battery pack extracts automatically from its compartment.

Figure 7: Installing the batteries

4. Slide the battery pack out of its compartment, and set it aside.

5. Insert the new battery pack in its compartment until it locks into place.

> ⚠ *Caution: You computer is shipped with a dummy battery pack. When the second battery is not installed, you must install the dummy battery pack in the empty bay.*

Disposing of the Battery

Refer to "*Battery Disposal*", page 14.

> **Note:** Before disposing of the battery, put adhesive tape on the connectors.

Windows® XP Embedded Administration Guide

Getting Started

This short administration guide describes some of the unique features of this XP Embedded terminal. The XP Embedded system is exactly the same as any normal Windows® XP Professional installation aside from a few important areas:

- The XP Embedded operating system build on this terminal only contains the drivers and.dll's that are essential to the operation of the device.
- The installation is protected from deletion and unauthorized changes by Microsoft's EWF subsystem.
- All temporary files are stored on a RAM disk as flash space is premium.

Use the utilities provided by NEC in order to configure these extra components and systems. More information about using them is available below.

Logging on as Administrator

In order to perform administration tasks you are required to log on as Administrator. Under situations the Administrator log in prompt may be hidden to prevent unauthorized access. It can be displayed using either of these methods:

- When the terminal is powered on:

  When powered on, the terminal displays the Windows® XP boot screen. At this point, press the **SHIFT** key down and keep it pressed. The terminal displays the Administrator log in prompt shortly afterwards.

- After the terminal is powered on:
  - From the Desktop, click the **Start** menu and select **Log Off.**
  - The terminal displays a dialog box requesting to confirm Log Off.
  - Press the **Shift** key down and keep it pressed.
  - Click on the **OK**.

  The user is logged off and the Administrator log in prompt is displayed.

User Names and Passwords

By default the user name and password for the Administrator have been set as follows:

- User name: **administrator**
- Password: **nec**

EWF Manager

What is EWF and How Does it Work?

EWF stands for Enhanced Write Filter. It works by redirecting all writes to the protected areas of a memory based sub-system where they are held until committed or discarded via a reboot of the device.

When you purchase the terminal, the EWF system is enabled by default. This prevents any users from altering settings and applications. If you want to make changes to the terminal configuration, log on as **Administrator** and use the EWF Manager after the changes have been made.

Open EWF Manager by clicking on **Start**, then **Control Pane**l, and finally **Administrative Tools**.
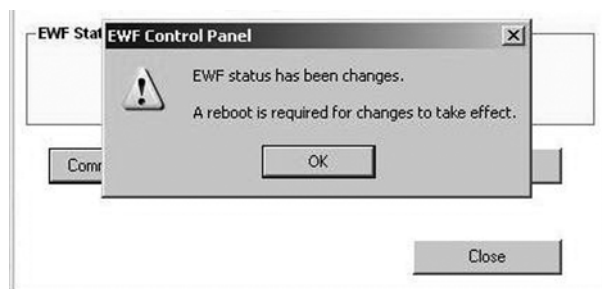
Commit Changes.

This button allows you to commit the changes that you have made to the file system or registry.
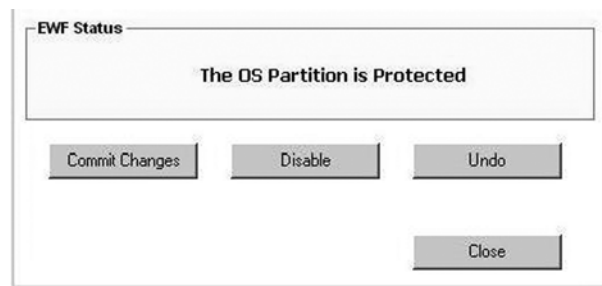
Committing will cause the EWF Manager to request to reboot the unit.

Undo

All writes that have been made and are pending as committal are cancelled bringing the system back to its previous state.

Disabling the EWF System.

Disabling the EWF system is extremely easy: simply click on the **Disable** button located in the EWF Manager. Then click on the **Reboot later** or **Reboot now** button. When restarting, you will notice that the EWF icon in the *System Tray* has changed to reflect the new status. The green triangle means that EWF is disabled and writes are actual.

Enabling the EWF System

Click on the **Disable** button in the EWF Manager. Then click on the **Reboot later** or **Reboot now** button. Once the terminal has re-started you will note that the EWF status in the *System Tray* has changed to reflect the new EWF status. The red triangle indicates that EWF is enabled and writes are virtual.

The XP RamDisk

As space is limited on the flash memory, a RamDisk is provided in order to be used by applications that need to write temporary information whilst running, e.g. Internet Explorer which requires storing its temporary files.

The RamDisk has been set by default to a size of 16 MB and Z: has been allocated as its drive letter. The RamDisk is administered through the Control Panel.
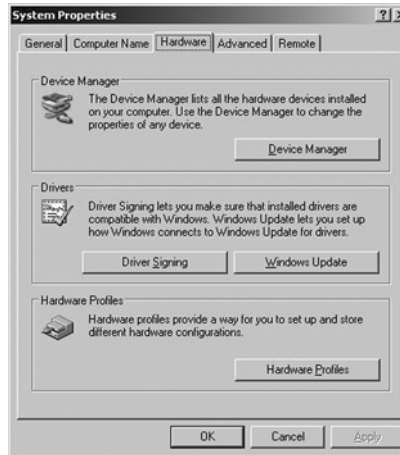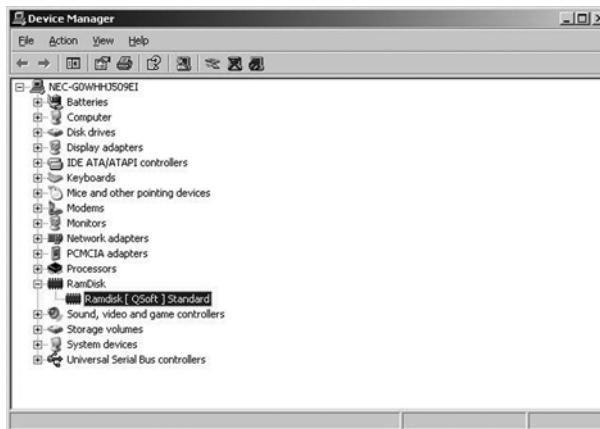
Starting the RamDisk Console

In order to administer the RamDisk you first need to start its console.

1. Log on as **Administrator**.

2. Open the Control Panel and double click the **System** icon.

The *System Properties* window opens.

3. Click on the **Hardware** tab and then on the **Device Manager** button.

The Device Manager window opens as shown in the below figure.

4. Locate the section marked RAM Disk and expand it by clicking the **+** sign.

5. Right-click the option **Ramdisk [QSoft] Standard** and select **Properties**.

The *Ramdisk Properties* window displays.

6. Modify the size of the RamDisk according to your needs.

Drive Letter

It is set by default to Z: and **should not be changed** as there are numerous registry entries that are hard-coded to look for the RamDisk at Z:

Disk Size

Its is set to 16 MB by default. Avoid increasing this unless you increase the amount of RAM in the system above the standard 256 MB. The operating system needs approximately 240 MB for efficient operation.

If you have more than 256 MB of system RAM and require a larger RAMDISK, then you can do one of the following:

• From the drop-down menu, select the size of the RamDisk you want.

• To let the system determine the size of the RamDisk automatically:

  ⬥ Select 32 MB.

  ⬥ Click on **Auto Resize**.

  ⬥ You will see that the space has now been set to the maximum possible.

File System

This is set to NTFS by default with Compression enabled. **<u>Do not modify it</u>**.
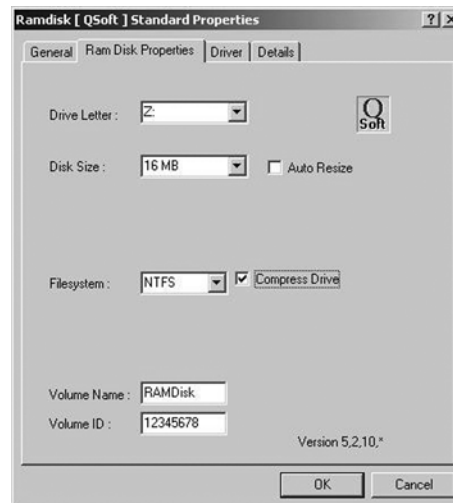
NEC ULTRACARE℠ SERVICES

■ ■

1 - Welcome

Thank you for choosing NEC products. The purpose of this document is to provide you with the Terms and Conditions of NEC UltraCare Services available on NEC hardware equipment only, excluding any NEC Solutions.

NEC Computers understands your need for product excellence as well as services and support. Depending on the type of NEC UltraCare Service purchased, NEC Computers endeavours to provide you with assistance on NEC hardware, configuration tools and protection solutions.

NEC UltraCare Services exclude resolution of any issue, bug or error related to software bundled or not into the Product. For Software support, please refer to the specific software service Terms & Conditions or contract concluded between you and NEC Computers SAS or your reseller.

More details on NEC Services and Solutions are available on www.nec-computers.com.

1.1 - Definitions

"**Product**" shall mean NEC-branded computer system: desktop, notebook, server, Thin Client, monitor, accessory, storage unit sold on a stand alone basis and excluding any NEC Solutions. Note: should you need technical support for a NEC product that is not listed above, please contact your NEC reseller.

"**Customer Replaceable Unit (CRU)**" shall mean all parts and subassemblies of some NEC-branded system. Unless otherwise specified by NEC Computers, the customer is responsible to remove and replace a failing Customer Replaceable Unit.

"**NEC Computers**" shall mean the company listed for the country in which the NEC-branded Product has been purchased. If no office is listed for the country in which the product has been purchased, NEC Computers shall mean NEC Computers SAS.

"**Client**" or "**you**" shall mean the end-user or purchaser of the NEC Computers Product.

"**Warranty**" shall mean the Standard Warranty delivered with your Product or the Warranty extension that you are entitled to subscribe to when purchasing your NEC Computers Product or within the first year after your date of purchase. Under the terms and conditions of the Data Protection Act in effect in your country, you are entitled to access, rectify and contest any personal details by writing to the following address: NEC UltraCare Helpdesk - 299, avenue Patton - BP 70645 - 49000 Angers - France.

Any personal details which you communicate to us are collected for the purpose of providing your NEC UltraCare Services.

2 - Registering Your NEC UltraCare Service

In order to validate the service that you have chosen, you must register the service with NEC Computers:

* either on line on http://ultracare.nec-computers.com;

* or by filling out the "UltraCare Registration Card" with the required data and returning it by mail or fax (contact details can be found on the UltraCare Registration Card).

Please keep your "NEC UltraCare Certificate" in a safe place along with your unique contract number, as your NEC Call Centre might ask for it when you call for assistance.

3 - Need for Intervention

3.1 - Assistance Provided

In the event of a Product incident, NEC Computers recommends that you perform a rapid technical investigation using self-diagnostic tools provided by NEC with your Product (Quick Start Guide, CD-ROM) and on line documentation on www.nec-computers.com, Support Section.

In case the problem persists you should contact your local NEC Call Centre, using the NEC UltraCare Technical Support addresses and phone numbers supplied[1]. Please make sure you have the following information available as your NEC Call Centre might ask for it when you call for assistance:

* The serial number of the NEC Product.

* The operating system installed on this NEC Product.

* Details of any software or hardware modifications made to the Product since purchase.

* The exact description of all failure messages.

Furthermore, make sure you have a backup copy of the data stored on your Product. NEC Computers will provide telephone support to diagnoses and if possible correct the defect over the telephone. If the failure cannot be resolved by telephone support, NEC Computers will repair the Product(s) as per the contracted service level and response time.

If you bought a specific support access, please refer to the specific Terms & Conditions or contract concluded between you and NEC Computers SAS or your reseller.

3.2 - Data Back-up Requirements

NEC Computers strongly advises you to make regular backup copies of any document, data, file or software stored on your

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1.Please refer to the back of the UltraCare coupon and the Warranty documentation delivered with your Product.

Product and private internal network. You are responsible for backing up any data stored on the Product prior to contacting NEC Computers' Call Centre for support.

NEC Computers shall not be liable for any loss of data stored on your Product or consequences of data loss as a result of NEC servicing the Product under NEC UltraCare Warranty.

NEC Computers also strongly recommends that you test and make personal back-up copies of all the software which you received with your hardware (e.g. Master CDs, software applications, drivers, etc.) within 30 days of receipt of your product. If you require copies of your software from NEC after 30 days of receipt of your product, NEC reserves the right to charge you for this service.

4 - General Conditions
4.1 - Descriptions

NEC Computers will perform the NEC UltraCare Services as outlined in this "Terms and Conditions" document for individual NEC Computers Hardware equipment specified at the date of purchase of this NEC UltraCare Service. Registration of the UltraCare service must be performed within 30 days of receipt of the UltraCare product and will link the product to the service for the remaining duration of the Warranty.

Unless otherwise specified by NEC Computers, the NEC UltraCare Service can be purchased throughout the first year of the initial Warranty of the NEC Computers hardware. After this period you should contact your nearest NEC Computers office for quotation. NEC Computers reserves the right to refuse customer requests for Warranty extension for systems which are already out of Warranty.

If there is a hardware failure before the NEC UltraCare Service has been registered with NEC Computers, the repair will not be covered by the NEC UltraCare Service. However, the repair may still be covered by your standard Warranty if applicable.

Unless otherwise specified by NEC Computers, the intervention for NEC UltraCare Services will take place during local business hours, Monday to Friday excluding public holidays.

Unless otherwise specified by NEC Computers, NEC Computers is not responsible for the compatibility with non-NEC products.

You are responsible for the security of your unique UltraCare contract service number. NEC Computers will not be held responsible for lost or stolen contract numbers, nor non-authorized use of the contract number. In cases where the Service has been fraudulently registered, no service will be provided

NEC UltraCare Services are not transferable to other persons or products, (except in cases where NEC Computers has replaced the Product, if the Product has Protection Services coverage or after explicit authorisation from NEC Computers). Please contact your local NEC reseller or sales office for more information.

4.2 - Date and Duration of Service

Unless otherwise stated by NEC Computers, the duration of the"Warranty Extension" service corresponds to the NEC Product purchase date plus the duration specified on the document "NEC UltraCare Registration Card" or on the UltraCare service purchase invoice.

4.3 - NEC Computers Call Centre Coverage Hours

Except in case of specific agreement with NEC Computers, the NEC Computers Call Centres are open from Monday to Friday, excluding public holidays during the following business hours (local time): **09:00 – 17:00**.

For further details concerning your geography, please refer to your Warranty documentation received with your Product.

4.4 - Intervention Periods

The NEC UltraCare Services are classified into different periods where technical diagnosis and intervention is available.

- **8 x 5**: the service is available 8 hours per day (9:00-17:00), 5 working days per week (Monday-Friday), excluding public holidays.

- **24 x 7**: the service is available 24 hours per day, every day of the week including public holidays.

4.5 - Intervention Time

In general, intervention time refers to the necessary time it takes for the service to be executed, under normal conditions, at your premises. This intervention time may vary depending on the type of suscribed Warranty.

- **D + x**: "x" represents the number of working days within which the service will be carried out. Service levels for repairs can vary per country and in remote locations, please contact your nearest NEC Computers office for specific details.

- **y Hours**: "y" represents the number of hours from the time the NEC Computers Call Centre has completed the diagnosis and has logged a service intervention, up to the time the engineer arrives at your premises. Please note the intervention period (8x5 or 24x7) determines whether "y" represents hours or business hours.

- **RTC D + x**: "x" represents the number of working days within which the RTC service will be carried out and the hardware problem will be fixed (note: excluding the time needed to restore the operating system and/or all other software pre-loaded by NEC Computers).

- **RTC y Hours**: "y" represents the number of hours from the time where the NEC Computers Call Centre has completed the diagnosis and has logged a service intervention, up to the time the engineer fixes the hardware problem at your premises, excluding the time needed to restore the operating system and/or all other software pre-loaded by NEC Computers. Please note the intervention period (8x5 or 24x7) determines whether "y" represents hours or business hours.

5 - UltraCare Warranty Extensions
5.1 - Exchange On Site Service

5.1.1 - Definition

NEC Computers delivers a complete replacement unit or a Client replaceable spare part at your premises (e.g. accessories, batteries, keyboards, mice, etc.). Service levels may vary per country/region.

When NEC Computers Call Centre diagnoses a hardware problem, NEC Computers will dispatch an authorised courier company to your premises to collect the failing Product and deliver a functional unit. You are required to have the faulty unit or part ready and available for replacement in order to obtain the replacement unit. Within the scope of this service and following NEC Computer's prior authorization, you may replace the spare part yourself. All intervention costs (travel, parts and labour) are borne by NEC Computers.

5.1.2 - On-site Exchange Cut-off time: 16:00 (local time)

The cut-off time is defined as the time on a given day by which your intervention must have been logged by the NEC Computers Call Centre in order for the service level to apply. Interventions logged after the cut-off time will take an additional business day before service can be provided.

5.2 - Pick Up, Repair and Return (PURR) Service
5.2.1 - Definition

NEC Computers coordinates the collection, repair and return of the Product. Service levels may vary per country/region. When NEC Computers Call Centre diagnoses a hardware problem, NEC Computers will invite you to prepare the Product for shipment. A NEC Authorised Service Partner will contact you to arrange for the pick-up of the Product. On the agreed business day, a NEC authorised courier company will pick up the Product at your premises. Once the Product is repaired in our certified NEC Computers repair centre, the courier company will return the Product to the same location. All costs (transports, parts and labour) are borne by NEC Computers.

5.2.2 - Geographic Scope

A complete list of the countries where the PURR service is available can be obtained from your NEC Computers sales agent. If you purchased your product and require service in another country than that of purchase, please contact your local NEC reseller for service. NEC UltraCare Warranty geographical coverage is only available on the mainland of the country of purchase. Overseas territories, islands and remote areas service coverage can vary per country and specific details can be requested from your local NEC Computers Client Service Office.

For International warranty service for laptop, please refer to the paragraph 5.7 for details.

5.2.3 - Pick Up, Repair and Return Cut-off time: 15:00 (local time)

The cut-off time is defined as the time by which your intervention must have been logged by the NEC Computers Call Centre in order for the service level to apply. Interventions logged after the cut-off time will take an additional business day to arrange pick up of the product.

5.3 - On-site Repair D+x
5.3.1 - Definition

NEC Computers coordinates the repair of the Product on site at your premises. Service levels may vary per country/region.

When NEC Computers Call Centre diagnoses a hardware problem, NEC Computers will arrange an intervention date with you. On the agreed business day, a NEC authorized service engineer will come to your premises to check the initial diagnostics and repair the hardware issue. If the repair requires replacement of a hard disk, the engineer will restore the operating system to a functional level, using the NEC licensed operating system copy which you must provide. You are then responsible for restoring any additional software beyond the operating system and for reloading the data from the backup. All intervention costs (travel, parts and labour) are borne by NEC Computers.

5.3.2 - On-site Repair D+x Geographic Coverage

A complete list of the countries where our On-site service is available can be obtained from your NEC Computers sales agent. If you purchased your Product and require service in another country than that of purchase, please contact your local NEC reseller for service. NEC UltraCare Warranty geographical coverage is only available on the mainland of the country of purchase. Overseas territories, islands and remote areas service coverage can vary per country and specific details can be requested from your local NEC Computers Client Service Office.

NEC UltraCare Services are only valid in the country where both the NEC UltraCare Service and the corresponding Product were purchased (unless otherwise stated by NEC Computers).

5.3.3 - On site Repair Cut-off time: 16:00 (local time)

The cut-off time is defined as the time on a given day by which your intervention must have been logged and qualified by the NEC Computers Call Centre in order for the service level to apply. Interventions logged after the cut-off time or logged and not qualified, will take an additional business day before service can be provided. A call is qualified when the NEC engineer has made a final diagnosis.

5.3.4 - 4 hours Response Geographic Coverage

A complete list of the countries where our UltraCare 4 hours Service is available can be obtained from your NEC Computers sales agent.

The NEC authorized service engineer will arrive at your premises within 4 hours after the NEC Computers Call Centre has logged and qualified the intervention request. The UltraCare 4 hours response service is available within a 120 km radius or less than 2 hours of travel time from major metropolitan cities. The UltraCare 4 hours Response service is not available in overseas territories, islands and remote areas. Please note the intervention period (8x5 or 24x7) determines whether the service level is in hours or business hours.

For locations with a distance between 120 km and 200 km from major metropolitan cities, a supplementary driving time could be added. This driving time will not exceed 2 hours. A complete list of the countries and major metropolitan cities where 4-hour response service is available can be requested from your NEC Computers sales agent.

In case the 4 hours service cannot be delivered for a specific location, NEC Computers reserves the right to inform you of this upon receipt of your "NEC UltraCare Registration Card". Your NEC UltraCare 4 hours Response Service will be available from the 10th working day after the reception and validation of the completed "NEC UltraCare Registration Card" document by NEC Computers or on-line registration.

4 hours Response service is only applicable to Servers. The following items are not included in the 4 hours Response service: notebooks, monitors, thin clients, keyboards, mice, accessories, racks, peripherals or any other items which are not built into a Server as an internal component by NEC Computers at the time of purchase. A complete list of countries where your UltraCare 4 hours. Response service is available can be obtained from your NEC Computers Sales agent.

5.3.5 - 4 hours Response 8x5 Interventions Cut-off time: 13:00 (local time)

The cut-off time is defined as the time by which your intervention must have been logged and qualified by the NEC Computers Call Centre in order to receive a same business day repair. Interventions logged after the cut-off time or logged and not qualified at 13:00 (local time) will be carried over to the next business day. Example: If an 8x5 4 hours Response intervention request is logged at 15:00, NEC Computers commits to arrive on site at 11:00 the next business day. Working hours for 4 hours. Response service are defined as being between 09:00-17:00 (local time) Monday to Friday, excluding public holidays. A call is qualified when the NEC engineer has made a final diagnosis.

5.3.6 - 4 hours Response 24x7 Interventions Cut-off time

There is no cut-off time for this service. Please note that NEC Computers Call Centre support will be provided in English on Saturdays, Sundays, during local holidays, or on business days outside Call Centre opening hours. The NEC Computers voice response server will request your Product's serial number along with your phone number and the failure type. Within half an hour, a NEC Computers engineer will call you back to qualify the failure and, if necessary, to arrange for an intervention. For a 24x7 intervention to take place you must be present at the equipment location during the intervention. Note – if you have not registered your 24x7 4 hours response service you will not be able to contact NEC Computers outside standard office hours.

5.4 - Repair Time Commitment (RTC) On Site Service
5.4.1 - Definition

NEC Computers coordinates the repair of the Product on site at your premises. Service levels may vary per country/region.

When NEC Computers Call Centre diagnoses a hardware problem, NEC Computers will arrange for an authorised service engineer to come to your premises. Once arrived on site, the service engineer will check the initial diagnostics and repair the hardware issue within the committed repair time. If the repair requires replacement of a hard disk, the engineer will restore the operating system to a functional level, using the NEC licensed operating system copy which you must provide. You are then responsible for restoring any additional software beyond the operating system and for reloading the data from the backup. The operating system restoration time is not included in the committed repair time. All intervention costs (travel, parts and labour) are borne by NEC Computers.

RTC service is only applicable for Desktops and Servers. The following items are not included in the RTC service: notebooks, monitors, thin clients, keyboard, mice, accessories, racks, peripherals or any other items which are not built into a Desktop or Server as an internal component by NEC at the time of purchase. NEC will not be liable for penalty claims on these items.

5.4.2 - Repair Time Commitment Geographic Coverage

A complete list of the countries where our UltraCare RTC Service is available can be obtained from your NEC Computers sales agent.

5.4.3 - 6 hours RTC Geographic Coverage

The NEC authorized service engineer will arrive at your premises and repair the hardware issue within 6 hours after the NEC Computers Call Centre has logged the intervention request. The UltraCare 6 hours Repair Time Commitment Service is available within a 120 km radius or less than 2 hours of travel time from major metropolitan cities. The UltraCare RTC Service is not available in overseas territories, islands and remote areas. Please note the intervention period (8x5 or 24x7) determines whether the service level is in hours or business hours.

For locations with a distance between 120 km and 200 km from major metropolitan cities, a supplementary driving time could be added. This driving time will not exceed 2 hours. A complete list of countries and the major metropolitan cities where the service is available can be obtained from your NEC Computers sales agent.

In case the UltraCare 6 hour RTC service cannot be delivered for a specific location, NEC Computers reserves the right to inform you of this upon receipt of your RTC service registration if the service cannot be proposed in a specific remote area. Your NEC UltraCare 6hr RTC Service will be available from the 10th working day after the reception and validation of the completed "NEC UltraCare Registration Card" document by NEC Computers or on-line registration. NEC Computers is entitled to arrange an onsite visit on your equipment location to validate your contract.

5.4.4 - RTC D+x Intervention Cut-off time: 16:00 (local time)

The cut-off time is defined as the time by which your intervention must have been logged and qualified by the NEC Computers Call Centre in order for the service level to apply. Interventions logged after the cut-off time or logged and not qualified will take an additional business day before service can be provided. A call is qualified when the NEC engineer has made a final diagnosis.

5.4.5 - RTC 6 hours 8x5 Intervention Cut-off time: 13:00 (local time)

The cut-off time is defined as the time by which your intervention must have been logged and qualified by the NEC Computers Call Centre in order to receive a same business day repair. Interventions logged after the cut-off time or logged and not qualified will be carried over to the next business day. Example: if an 8x5 RTC intervention request is logged at 15:00, NEC Computers commits to repair the hardware issue on site before 13:00 the next business day. Working hours for RTC 8x5 services are defined as being between 09:00-17:00 (local time) Monday to Friday, excluding public holidays. A call is qualified when the NEC engineer has made a final diagnosis.

5.4.6 - RTC 6 hours 24x7 Cut-off time

There is no cut-off time for this service. Please note that NEC Computers Call Centre support will be provided in English outside Call Centre 8x5 intervention times, including public holidays. The NEC Computers voice response server will request your Product's serial number along with your phone number and the failure type. Within half an hour, a NEC Computers engineer will call you back to qualify the failure and, if necessary, to arrange for an intervention. For a 24x7 intervention to take place you must be present at the equipment location during the intervention. Note – if you have not registered your 24x7 4 hours response service you will not be able to contact NEC Computers outside standard office hours.

5.4.7 - RTC and 4 hours Response Client's Responsibilities

NEC Computers is entitled to request that you submit a report generated by the NEC Computers diagnosis tools supplied with your hardware, including the configuration details of the relevant Product, in order to facilitate the committed resolution within the given timeframe. If your system configuration has evolved, you must immediately inform NEC Computers and generate a report using the NEC Computers diagnostic tools as stated above. NEC UltraCare RTC Service and 4 hours. Response service are only available in the purchase country of the Product and are dependant on the Product location. If you want to change the location of the equipment, it is your responsibility to notify NEC Computers immediately of the new location details and the moving date. NEC Computers will validate the new location against the geographic rules as stated above and notify you if the service remains valid or must be changed. The NEC UltraCare RTC and 4 hours Response services are not available during any move. After the move you should check the integrity of the system before requesting service. Your NEC UltraCare 6 hr. RTC Service or 4 hours Response Service will be available again from the 10th working day after the date of notification.

In the event of a service request, you are responsible to ensure that a qualified person is available to enable proper telephone diagnosis by the NEC Call Centre. You are also responsible to provide unrestricted and immediate access to the location of the equipment to be serviced during the on site intervention and to ensure that a qualified person is available for the certified service engineer during the on site intervention.

RTC service and 4 hours Response service will only be implemented when you have fully completed the registration of your Warranty. NEC Computers cannot provide RTC or 4 hours Response service to customers who have not registered their Warranty. NEC will not be liable to pay RTC penalty claims for Products where either the Warranty has not been correctly registered with NEC or during the 10 working days required after an accepted registration (or transfer of site location) has been completed to implement the RTC service.

5.4.8 - Repair Time Commitment Penalties

Where NEC Computers has not respected the repair time as stated in the NEC UltraCare Services contract, upon request at the time of intervention, you are entitled to claim maximum compensation of 150 € (in case of RTC On Site 6 hours), or 50 € (in case of RTC On Site D+x), exclusive of any other compensation. In no case will the total compensation during the Warranty period exceed the initial fee paid for the NEC UltraCare contract. The claim must be sent to NEC Computers within 30 days after the intervention has been performed. The claim form to be used can be downloaded from www.nec-computers.com Services & Solutions UltraCare section or from the UltraCare Services CD delivered with your Product.

Compensation shall not be awarded in any case where the cause of damage is independent of NEC Computers. NEC Computers also reserves the right to charge you for any repair costs incurred where the cause of damage is independent of NEC Computers:

- In the case of natural disaster (e.g. fire, flood, earthquake, etc.)

- When it is found that the hardware issue was due to customer induced accidental damage or damage caused by hardware being used or stored in unfit environmental conditions (see the care and handling guidelines in the Product's user manual).

- When it is found that the issue was caused by the addition of non NEC validated hardware or software.

- When it is found that the issue was caused by a virus and/or Spyware

- Where the Client has not respected his obligations - e.g. if the location of the Product in need of repair is not easily accessible or the Client was not available when the engineer arrived on-site.

- Where the location of the Product in need of repair (or Product information) does not correspond to the information supplied to NEC Computers according to the UltraCare registration details and/or change of location process described above has not been followed.

- The failure has been caused by repairs performed by a Service Provider or person who has not been authorised by NEC.

5.5 - Carry in Service
5.5.1 - Definition

NEC Computers coordinates the repair and return of the Product. Service levels may vary per country/region.

When NEC Computers Call Centre diagnoses a hardware problem, NEC Computers will invite you to send the defective Product to the certified NEC Computers authorised repair centre. Once the Product is repaired in our certified NEC Computers repair centre, a NEC authorised courier company will return the Product to your premises. The cost of replaced components/parts and cost of labour are borne entirely by NEC Computers. On the other hand, the fees for transportation of the defective Product to the NEC repair centre remain at your own charge.

5.5.2 - Carry in Service Geographic Scope

A complete list of the countries where our carry in service is available can be obtained from your NEC Computers sales agent. If you purchased your Product and require service in another country than that of purchase, please contact your local NEC reseller for service. NEC UltraCare Warranty geographical coverage is only available on the mainland of the country of purchase. Overseas territories, islands and remote areas service coverage can vary per country and specific details can be requested from your local NEC Computers Client Service Office.

NEC UltraCare Services are only valid in the country where both the NEC UltraCare Service and the corresponding Product were purchased (unless otherwise stated by NEC Computers).

5.6 - Advanced Exchange for Customer Replaceable Unit (CRU) Service
5.6.1 - Definition

NEC Computers delivers a customer replaceable unit at your premises. Service levels may vary per country/region.

When NEC Computers Call Centre diagnoses a hardware problem, a NEC Authorised Service Partner will deliver a customer replaceable unit at your premises. In the meantime, you will also receive a technical instructions document as well as a complete kit of protection materials provided by NEC Computers or NEC Authorised Service Partner. You are then invited to carry out the replacement of CRU yourself, and after the replacement, send the defective unit back to our Authorised Service partner either with the aid of prepaid packaging, or by calling our Authorised Service partner who will arrange for the pick up of the failing unit. The cost of replaced unit as well as the transportation fees are borne entirely by NEC Computers. The replacement of customer replaceable unit is under your responsibility and as a consequence NEC shall not bear any liability for an installation of the customer replaceable unit not compliant with communicated technical instructions. If a failure occurs due to an installation not compliant with communicated technical information, NEC reserves the right to invoice any intervention cost (transports, parts and labour) relative to the repair of such failure.

5.6.2 - CRU Service Geographic Scope

A complete list of the countries where our customer replaceable unit service is available can be obtained from your NEC Computers sales agent. If you purchased your Product and require service in another country than that of purchase, please contact your local NEC reseller for service. NEC UltraCare Warranty geographical coverage is only available on the mainland of the country of purchase. Overseas territories, islands and remote areas service coverage can vary per country and specific details can be requested from your local NEC Computers Client Service Office.

NEC UltraCare Services are only valid in the country where both the NEC UltraCare Service and the corresponding Product were purchased (unless otherwise stated by NEC Computers).

5.6.3 - Customer Replaceable Module D+x Cut-off time: 13:00 (local time)

The cut-off time is defined as the time on a given day by which your intervention must have been logged and qualified by the NEC Computers Call Centre in order for the service level to apply. Interventions logged after the cut-off time or logged and not qualified, will take an additional business day before service can be provided. A call is qualified when the NEC engineer has made a final diagnosis.

5.7 - International Warranty for Laptops
5.7.1 - Definition

NEC Computers undertakes to repair your laptop and in the meantime, to apply the best service level available in the country/region wherever your geographic situation is. Service level may vary per country/region.

When NEC Computers Call Centre diagnoses a hardware problem, you can benefit from either a PURR service or an On-site Repair D+x service for the repair of your laptop. Please refer to the paragraph 5.2 and 5.3 for the details of both services. All intervention costs (travel, parts and labour) are borne entirely by NEC Computers.

5.7.2 - Laptop International Warranty Geographic Scope

The international warranty for laptop service has world wide coverage. If you purchased your product and require service in another country than that of purchase, NEC Computers will apply the best service level available either a PURR service or an On-site Repaire D+x service, in the country where you are requiring the service. The geographic coverage for both services is:

- PURR:
  - The PURR D+x service is available in Europe. The service level may vary per country/region. Specific details can be requested from your NEC Computers sales agent;
  - In all other countries, the repair of your laptop will be done based on PURR "Best Effort". Please be assured that NEC Computers will always do our utmost to guarantee customer satisfaction.

- On-site Repair D+x is available in a part of Europe. A complete list of the countries where our On-site Repaire Service is available can be obtained from your NEC Computers sales agent.

6 - ULtraCare Protection Solutions

NEC UltraCare Protection Solutions provide an extension of the Standard Warranty. Services delivered to you under coverage of UltraCare Protection Solutions will be provided in accordance with the terms and conditions set forth in the NEC UltraCare Warranty Conditions that you have received with your NEC Computers Product. Included with the

Warranty conditions, you will find information regarding the procedure to follow in order to obtain service and useful NEC telephone numbers.

6.1 - Definitions

"Member" shall mean any person or entity as stated on the NEC UltraCare Protection Solutions service contract.

"Accident" shall mean a sudden and non intentional event resulting in damage.

"Equipment damage" shall mean the deterioration or destruction of the equipment under Warranty.

"Theft by forced premises" or **"break-in"** shall mean theft from premises after forced entry or break-in of a vehicle.

"Aggravated assault" shall mean any act of violence or physical threat made voluntarily by a third party to dispossess the Member of the equipment under Warranty.

Theft without aggravated assault or forced premises is not covered by Protection Services Warranty.

"Act of God" shall mean damage from lightning, flood, hurricane, avalanche, tidal wave, earthquake, storm or any other event considered to be a natural disaster.

Replacement Product Warranty: In the event that a replacement unit is approved by NEC according to the Protection Services Warranty terms and conditions: NEC will provide you with a unit which has equivalent or better functionality and specifications than your original unit.

6.2 - Scope of Warranty

6.2.1 - Protection Services: Products Covered

Portable computer equipment purchased from NEC Computers or a NEC authorised reseller. The covered Products are mentioned on the NEC UltraCare Protection Solutions registration card.

Replacement equipment shall be covered by the same Warranty as the original Product, starting on the day of replacement Product delivery and valid for the remaining duration of the NEC UltraCare Protection Solutions Warranty period.

6.2.2 - Protection Services: Events Covered

Equipment damage or loss resulting from the following: accidental breakage, fire, water damage, theft by forced premises, break-in, aggravated assault, electrical damage or acts of God are covered by Protection Services Warranty.

6.2.3 - Rules Concerning Protection Services Warranty Activation

The NEC UltraCare Protection Solutions service contract must be registered with NEC Computers. You are liable to register your NEC UltraCare Protection Solutions service according to the registration possibilities offered by NEC Computers (see section 2: Registering your NEC UltraCare Service).

The following information must be given:

- The Protection Solution Service contract number.

- Information concerning the equipment purchased: e.g. serial number, date of purchase, etc.

- Your details: company name, contact details and address of the legal entity.

6.2.4 - Protection Services Warranty Exclusions

The following are excluded from coverage:

- Equipment which is not specifically covered by a NEC UltraCare Protection Solutions service contract.

- Damage or loss which is due to wilful negligence.

- Damage to the covered equipment which is caused by intentional breakage.

- Damage which is caused by the Product being stored or used in unfit environmental conditions e.g.: dryness, humidity, excess temperature, corrosion, excess dust, etc. (see the care and handling guidelines in the Product's user manual).

- The equipment has been replaced on the Client's initiative.

- The connecting cables are not covered by Protection Services Warranty (whether delivered with or without the equipment under Warranty).

- Software, consumables (such as batteries), peripherals or accessories which are not incorporated into the equipment under Warranty are not covered by Protection Services Warranty.

- Aesthetic damage.

- Costs to maintain update or improve the equipment under Warranty.

- Damage or loss due to failure to follow manufacturer or distributor instructions or failure to comply with the Member's responsibilities and obligations for this service contract

- Damage resulting from repair of the equipment under Warranty by any person other than an authorised NEC Computers service centre.

- Normal wear and tear of the equipment under Warranty.

- Parts and damage covered by the manufacturer's Warranty or legal Warranty.

- Theft without forced premises or theft from vehicles without break-in.

- Damages, failures or flaws originating from the equipment under Warranty.

- Damages resulting from an incident during the operation of the equipment under Warranty, failure to remedy a faulty connection.

- Costs incurred for data recovery, reinstallation or reprogramming.

- Non-material damage: profit losses, market losses and loss of right enjoyment.

- Damages incurred as a result of civil or foreign war, receivership, seizure or destruction as ordered of the civil or military authorities.

- Damages of nuclear origin or caused by any of ionising radiation.

- Costs resulting from the Member's responsibilities regarding claims (e.g. to obtain and submit to NEC Computers the supporting documentation required for the service).

6.3 - Protection Services Geographic Coverage

The Geographic Coverage of Protection Services is worldwide coverage. This means that if you suffer a loss or damage in any country worldwide NEC will repair or replace the unit (as long as the documentation is valid and the claim is within the scope of Protection Services coverage). Service will only be performed from the country of purchase.

6.4 - Member's Responsibilities Regarding Protection Services Claims

You must inform NEC Computers Call Centre within five business days following the event which is to be claimed.

For every event to be claimed, you must fully complete and submit a Protection Services claim form to NEC, this includes:

- The date, the nature of, the circumstances and the causes of the event.

- The contract number as indicated on the NEC UltraCare Protection Solutions service contract.

- Information concerning the equipment under Warranty (equipment type, brand, serial number).

The Protection Services claim form can be found on the UltraCare Services CD delivered with your Product or can be downloaded from www.nec-computers.com, Services & Solutions UltraCare section.

Supporting documents to be sent with the statement:

- For theft: you must provide NEC with an original police report stating the circumstances of the theft. You are liable for any costs or fees required to obtain a full police report from the appropriate authorities. Copies of police reports are not acceptable.

- If the equipment under Warranty suffers irreparable damage or is stolen, the requested documents must be addressed to NEC Computers by registered post. For other cases, the statement may be submitted via email, fax or letter.

- A fully completed Protection Services claim form is required by NEC for a claim for theft or for accidental damage.

- NEC Computers retains the right to request additional information or documents such as the original invoice for the Product or Protection Solutions service in order to validate your claim.

NEC Computers will decide whether the equipment under Warranty should be repaired or replaced. Service will not be provided by NEC until all the required documentation has been received and validated.

6.5 - NEC Protection Service

NEC Computers will:

- Replace equipment covered under the UltraCare Protection Solutions service contract in the event the equipment has been stolen or has suffered irreparable damage, or

- Arrange for repair of the damaged equipment covered under the UltraCare Protection Solutions service contract by an authorised NEC Computers service partner via Pick up, Repair and Return service (see section 5.2.).

NEC Computers Protection Solutions are available only in combination with a 3 year On-Site D+x or Pick-Up and Return UltraCare Warranty.

All intervention costs (travel, parts and labour) are borne by NEC Computers, except costs resulting from the Member's responsibilities regarding claims (e.g. to obtain and submit to NEC Computers the supporting documentation required for the service).

6.6 - Protection Services Warranty Period

The Warranty is contracted for a maximum duration of 3 years in combination with the Product and NEC UltraCare Warranty extension purchase (3 years On-Site D+x or Pick-Up and Return D+5). The Warranty is not renewable. If NEC Computers replaces a Product which has an UltraCare Protection Services Warranty extension, then the remaining duration of your Warranty will be transferred to your new replacement Product.

6.7 - Termination

Automatic termination of the Warranty occurs when:

- The equipment under Warranty suffers total loss as a result of an event not covered by the Warranty.

- The equipment under Warranty is transferred to a new owner.

- The end of the 3 years Warranty period is reached.

Termination upon Member's request

You may terminate your NEC UltraCare Protection Solutions three (3) years Warranty upon request. However, NEC Computers will not be liable for any refunds for the remaining service period

6.8 - Miscellaneous Provisions

Time related limitations: any action made in light of the contract is limited in time to two (2) years starting from the day of the event that gave rise to the action. Sending a letter by registered post, return receipt requested, may interrupt time limitations.

7 - NEC Computers Warranty Specifications

7.1 - Scope of Warranty

NEC UltraCare Warranty is only applicable for the Product as shipped by NEC Computers, and does not cover expansion items (i.e.: Client installed accessories and/or peripherals) purchased separately from the Product unless specifically authorised by NEC.

If NEC replaces a Product on which you have purchased an UltraCare Warranty extension, then the remaining duration of your Warranty will be transferred onto the new replacement unit.

7.2 - Service Visit Preparation

You are responsible for enabling access to the Product at the agreed intervention for the NEC certified engineer or NEC authorised courier.

Unless otherwise advised by the NEC Computers Client Contact Centre, you need to ensure that any expansion items or additional components are disconnected from the Product, before service can be delivered.

NEC Computers shall not be liable for any damage to expansion items which have not been removed prior to service. Additional costs to remove or disconnect such items may be charged by NEC Computers.

You are responsible for making regular backups and backing up any data on the Product before service is delivered. NEC Computers shall not be liable for the loss of any data stored on your Product or the consequences of data loss as a result of NEC servicing the Product under Warranty.

7.3 - Warranty Exclusions

NEC Computers reserves the right to deny or charge for service & repair of your Product if:

- The failure results from the neglect or misuse of the Product by other parties than NEC Computers, including but not limited to installation, storage and/or usage of the Product in an unsuitable environment (see the care and handling guidelines in the Product's user manual).

- The failure is caused by accidental damage (unless covered by Protection Services Warranty) or wilful negligence.

- The failure is caused by repairs not performed by an authorised NEC Computers Service Provider.

- The failure is caused by software or hardware components not installed by NEC Computers.

- The original proof of purchase cannot be produced, if requested.

- Your request for service is received after the Warranty period has expired.

- The failure is caused by a virus and/or Spyware.

- You were not available on the agreed appointment date and did not inform NEC Computers of the cancellation within a reasonable timeframe.

- The failure is caused by electrical damage or an act of God (lightning, flood, hurricane, avalanche, tidal wave, earthquake, storm or any other event considered to be a natural disaster).

The repair request is for aesthetic damage which does not affect the functionality of the Product.

7.3.1 - Specific Warranty Exclusions or Conditions

NEC will replace any failing notebook batteries for a period of 6 months from the date of the hardware purchase (unless specifically stated or authorised by NEC computers). Batteries do not benefit from the same Warranty as the host Product.

Any parts or accessories (excluding monitors) purchased from NEC after the purchase of the host Product will be applicable for 1 year Warranty or the remaining duration of the standard Warranty on the customer's hardware (whichever is greater). These parts and accessories will be serviced according to standard Warranty conditions for parts and accessories and do not benefit from any special services which may be applicable for the host unit (unless specifically stated by NEC).

Consumable items (e.g. external keyboards, mice, etc.) will be serviced according to standard Warranty conditions for consumable items and do not benefit from any special services which may be applicable for the host unit (unless specifically stated by NEC).

NEC Computers reserves the right to charge customers who wish to retain any defective parts replaced during a service intervention. Defective parts replaced during a Warranty intervention are the property of NEC Computers (unless otherwise specified).

NEC Computers reserves the right to change the type of service supplied if it is deemed by NEC to be in the best interests of the Client.
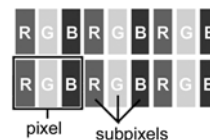
7.3.2 - Specific Warranty Conditions Concerning LCD screens

All NEC display Products meet the ISO 13406-2 guidelines, class II.

Terminology:

There are millions of sub-pixels on each monitor. Each cluster of three sub-pixels forms a whole pixel. Pixel faults in LCD monitors can be comprised of whole pixels or sub-pixels going dark, staying permanently lit or flashing.

The proportion of Bright Dot Free panels should be more than **90%** for each batch shipped to NEC Computers.
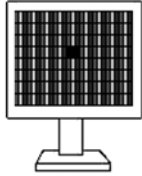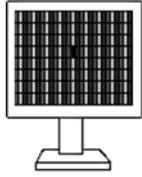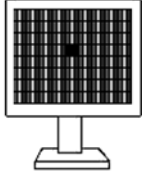
DEFINITION:
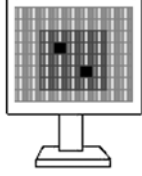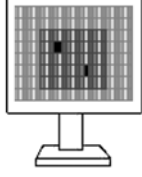
DEFECT TYPE	DEFINITION	EXAMPLE 1	EXAMPLE 2
Type 1	A complete pixel is constantly illuminated. The result is constantly white point		
Type 2	A complete pixel is not illuminated at all. The result is a constantly dark point		
Type 3	One or two sub pixels (Red, Green, Blue) are permanently switched ON or OFF. This results in a pixel in one of the basic colours (red, green, blue, cyan, magenta, yellow) A blinking pixel can also occur		
Cluster of errors Type1 or 2	There are several Type 1 or 2 malfunctions in a field of 5*5 pixels		
Cluster of errors Type 3	There are several Type 3 malfunctions in a field of 5*5 pixels		

Table 1: LCD defect types

NEC Computers strives to provide the highest quality LCD display Products in the industry. Your Product meets the Class 2 specifications under the ISO 13406-2 industry guidelines for LCD monitors.

LCD monitors use a technology based on pixels. A pixel is a combination of three sub-pixels (red, green and blue) that produce a specific colour. There are millions of these sub-pixels on each LCD screen. Pixel faults on LCD screens can be comprised of whole pixels or sub-pixels going dark, staying permanently lit or flashing.

The ISO 13406-2 standard allows for a certain number of pixel faults based on the number of total pixels in the monitor (determined by the screen size).

NEC Computers will replace an LCD monitor during the Warranty Period if it meets the following criteria:

Size	Number of pixels		Type 1	Type 2	Type 3	Faulty Cluster 1	Faulty Cluster 2
			Bright	Dark	Subpixel	Cluster of errors Type 1 or Type 2 in 5x5 pixels	Cluster of errors Type 3 in 5x5 pixels
15"	1024x768	786432	2	2	4	1	2
17"	1280x1024	1310720	3	3	7	1	3
19"	1280x1024	1310720	3	3	7	1	3

Table 2: Defective pixels

Type 1: A full pixel is always visible on the screen, resulting in a white point.

Type 2: A full pixel does never illuminate at all, resulting in a dark point.

Type 3: One or two sub-pixels are always switched on or switched off, resulting in a pixel of one of the basic colours (red, green, blue, cyan, magenta or yellow), or a continuously blinking pixel occurs.

Faulty Cluster 1: Within a field of 5x5 pixels there are several malfunctions of Type 1 or Type 2.

Faulty Cluster 2: Within a field of 5x5 pixels there are several malfunctions of Type 3.

NEC Computers Warranty will not apply to screen failures resulting from accident, neglect or misuse, unusual physical or electrical stress, failures of your electrical power mains, external electricity circuitry and/or environmental control (air conditioning).

7.4 - NEC Computers Liability

THE SOLE PURPOSE OF THIS LIMITED WARRANTY SHALL BE REPAIR OR REPLACEMENT OF DEFECTIVE PART(S) AS PROVIDED ABOVE. UNDER NO CIRCUMSTANCES SHALL NEC COMPUTERS BE LIABLE TO THE END USER OR ANY THIRD PARTY FOR ANY DAMAGES; INCLUDED BUT NOT LIMITED TO LOSS OF: DATA, OPERATING SYSTEM, APPLICATION SOFTWARE, BUSINESS, REVENUE OR PROFITS; OR ANY OTHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR NOT CONSEQUENTIAL DAMAGES WHETHER OR NOT FORESEEABLE AND WHETHER OR NOT BASED ON BREACH OF WARRANTY, CONTRACT OR NEGLIGENCE IN CONNECTION WITH THE SALE OF THE PRODUCT EVEN IF NEC COMPUTERS OR ONE OF ITS COMMERCIAL AFFILIATES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME COUNTRIES OR JURISDICTIONS DO NOT ALLOW FOR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY IN THESE SPECIFIC CASES.

NO WARRANTIES, EXPRESS OR IMPLIED, ARE MADE WITH RESPECT TO THE PRODUCT MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

ALL EXPRESSED AND IMPLIED WARRANTIES FOR THE PRODUCT, ARE LIMITED IN DURATION TO THE WARRANTY PERIODS SET FORTH ABOVE AND NO WARRANTIES, WHETHER EXPRESSED OR IMPLIED, WILL APPLY AFTER SUCH PERIOD. SOME COUNTRIES OR JURISDICTIONS DO NOT ALLOW FOR LIMITATIONS ON IMPLIED WARRANTY DURATION, SO THE ABOVE LIMITATIONS MAY NOT APPLY FOR THIS SPECIFIC CASE.

Any previous revisions of the terms and conditions document will be superseded by the latest revision of the NEC Terms and Conditions document. The last or current revision of the Terms and Conditions document produced by NEC will always be the applicable and legally binding document. Please refer to your local NEC Computers Sales office for the latest terms and conditions documentation.

NEC Computers shall do its best efforts to avoid any delay in performance specified in this Warranty and shall not be liable for any failure or delay in performance due to any cause beyond its control. Such circumstances include, but are not limited to, interrupted telephone service, airport closures that interrupt parts delivery, acts of God, labour strikes, inability to contact the Client to confirm scheduling, and the shortage or end of life of spare parts.

NEC Computers reserves the right to pass your personal details to third parties, in order to ensure that service is carried out.
Nothing in the NEC Computers Limited Warranty affects the statutory rights of the Client.
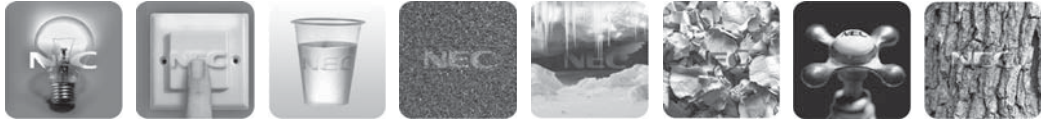
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