NWL-100 Series
Wireless LAN Card
Installation Guide
FCC Compliance

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

This equipment has been tested and found to comply with the limits for a Class B Personal Computer and Peripheral, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

This equipment has been tested to comply with the limits for a Class B personal computer and peripheral, pursuant to Subpart B of Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, printers, etc.) certified (DoC) or verified to comply with Class B limits may be attached to this equipment. Operation with non-certified (DoC) or non-verified personal computer and/or peripherals is likely to result in Interference to radio and TV reception. The connection of a unshielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by FCC for equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

For portable devices without co-location condition (e.g. notebook pc)

FCC RF Radiation Exposure Statement:
1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This device was tested and complies with FCC RF Exposure (SAR) limits in typical laptop computer configurations and this device can be used in desktop or laptop computers with side mounted PCMCIA slots which can provide 8 mm separation distance from the antenna to the body of the user or a nearby person. Thin laptop computers may need special attention to maintain antenna spacing while operating. This device cannot be used with handheld PDAs (personal digital assistants). Use in other configurations may not ensure compliance with FCC RF exposure guidelines.

This Class B digital apparatus complies with Canadian RSS-210.
Cet appareil numérique de la Classe B est conforme à la norme CNR-210 du Canada.
DGT Warning Statement:

根據交通部 低功率管理辦法 規定：
第十四條　經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十七條　低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，指依電信規定作業之無線電信，低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Usage restrictions in the EU

This device can operate indoors or outdoors in all countries of the European Community using the 2.4 GHz band: Channels 1 – 13, except where noted below:

- In Italy the end-user must apply for a license from the national spectrum authority to operate this device outdoors.
- In Belgium outdoor operation is only permitted using the 2.46 – 2.4835 GHz band: Channel 13.
- In France outdoor operation is only permitted using the 2.4 – 2.454 GHz band: Channels 1 – 7.
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1. Introduction

NWL-100 Series offers performance comparable to an Ethernet Local Area Network (LAN) system, without the limitations of network cables. It allows you to connect your computer to a Local Area Network from anywhere within the wireless coverage area. It also enables you to roam throughout the network while remaining connected to the LAN.

Operating Requirements

Personal computer containing:
  Card slot: PC card (Type II) CardBus
  Memory: 32 MB or greater
  CPU: 300 MHz processor or higher

Supported OS:
  Microsoft Windows 2000 Professional
  Microsoft Windows XP Home Edition
  Microsoft Windows XP Professional

* Windows is a registered trademark or trademark of Microsoft Corporation in the United States and other countries.
2. Windows 2000

This chapter describes the Windows 2000 driver installation.

**Caution** Windows 2000 operating systems require administrator privileges to install software. Be sure that you have such privileges before executing the Setup.exe file.

**Installation (First-Time Installation)**

This section describes first-time installation of the driver and utility for Windows 2000.

**To install the NDIS driver and client utility (first-time installation)**

For initial installation, the Setup.exe file should be run before the Wireless LAN Card is physically installed in your computer.

1. Open the InstallShield Wizard (setup.exe).
2. Click Next to continue.
3. Click **Next** to accept the License Agreement.

![License Agreement](image)

4. The Program Setup Type dialog will display.

5. Choose "**Install Driver and WCUI Applications [recommended]**".

![Setup Type](image)

The Setup Type page provides selections as summarized in **Table 2-1**.

<table>
<thead>
<tr>
<th>Selection</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install Driver and WCUI Applications</td>
<td>Recommended. Installs the driver and Client Utility.</td>
</tr>
<tr>
<td>Install Driver Only</td>
<td>Installs NDIS driver only.</td>
</tr>
</tbody>
</table>
6. Click Next to continue.

7. Choose the destination location. Click Next to continue.

8. Specify the program folder. Click Next to continue.
9. The NDIS driver currently does not have a digital signature from Microsoft, so Windows 2000 may show a warning message. Click Yes to proceed with driver installation. NEC has confirmed that this driver successfully operates in Windows 2000.

10. Click Finish when the InstallShield Wizard is finished.
To install a Wireless LAN Card physically (first-time insertion)
Insert the Wireless LAN Card into the PC card slot of the personal computer and follow these steps to install the NDIS driver:

1. Wait for Found New Hardware to operate.
2. The inserted Wireless LAN Card is detected.
3. The NDIS driver currently does not have a digital signature from Microsoft, so Windows 2000 may show a warning message. Click Yes to proceed with driver installation.

![Digital Signature Not Found](image.png)

4. The Driver and Client Utility installation is completed.
5. Refer to Utilities on page 24 for device configuration.
Driver and Client Utility Updates
NEC provides an InstallShield utility to update the Driver and Client Utility, if a previous release is installed.

Caution End all the applications before the update of the driver and utility begins. Otherwise, an InstallShield utility may not be normally finished

To update the NDIS driver and Client Utility
When the NDIS driver and Client Utility have been previously installed, insert the Wireless LAN Card into the PC card slot. Follow these steps to update the NDIS driver and Client Utility.

1. Open the InstallShield Wizard (setup.exe).
2. Choose "Update using same settings as last install". Click Next to continue.
3. The NDIS driver and Client Utility are updated by the installer.
4. Click **Finish** when the InstallShield Wizard is finished.
Driver and Client Utility Uninstallation
This section provides information about uninstallation procedures for software releases.

**Caution** End all the applications before the uninstallation of the driver and utility begins. Otherwise, an InstallShield utility may not be normally finished.

To uninstall the NDIS driver and Client Utility
Insert the Wireless LAN Card into the PC card slot. Use the InstallShield Updater to uninstall the NDIS driver and Client Utility applications and remove them from the Device Manager.

1. Open the Add/Remove Programs from the Windows control panel.
2. Choose "Wireless Configuration User Interface Applications".
3. Click Change/Remove.
4. The installer starts.
5. Choose "Delete the previous installation". Click Next to continue.

6. The Confirm Uninstall message box is displayed. Click OK to continue.

7. The Question message box is displayed. Click Yes to continue.
8. Click Finish when the InstallShield Wizard is finished.
3. Windows XP

This chapter describes the Windows XP driver installation.

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**Caution** Windows XP operating systems require computer administrator privileges to install software. Be sure that you have such privileges before executing the Setup.exe file.

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**Installation (First-Time Installation)**

This section describes first-time installation of the driver and utility for Windows XP.

**To install the Client Utility and NDIS driver (first-time installation)**

For initial installation, the Setup.exe file should be run before the Wireless LAN Card is physically installed in your computer.

1. Open the InstallShield Wizard (setup.exe).
2. Click Next to continue.
3. Click **Next** to accept the License Agreement.

The Program Setup Type dialog will display.

5. Choose "**Install Driver and WCUI Applications [recommended]**".

The Setup Type page provides selections as summarized in **Table 2-1 on page 7**.

6. Click **Next** to continue.
7. Choose the destination location. Click **Next** to continue.

8. Specify the program folder. Click **Next** to continue.
9. The NDIS driver currently does not have a digital signature from Microsoft, so Windows XP may show a warning message. Click **Continue Anyway** to proceed with driver installation. NEC has confirmed that this driver successfully operates in Windows XP.

![Software Installation dialog box]

10. Click **Finish** when the InstallShield Wizard is finished.

![Install Program for Wireless Configuration User Interface Products dialog box]
To install Wireless LAN Card physically (first-time insertion)
Insert the Wireless LAN Card into the PC card slot of the personal computer and follow these steps to install the NDIS driver:

1. Wait for the Found New Hardware Wizard dialog box to display. With the Windows XP Service Pack 2 (SP2), the following dialog box is displayed. Choose “No, not this time” and click Next to continue.

   ![Found New Hardware Wizard](image)

   Welcome to the Found New Hardware Wizard

   Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). Read our privacy policy

   Can Windows connect to Windows Update to search for software?
   - Yes, this time only
   - Yes, now and every time I connect a device
   - No, not this time

   Click Next to continue.

2. Choose "Install the software automatically [Recommended]" and click Next to continue.

   ![Found New Hardware Wizard](image)

   Welcome to the Found New Hardware Wizard

   This wizard helps you install software for
   "TK-6900145 Corinna Wireless Network Adapter"

   If your hardware came with an installation CD or floppy disk, insert it now.

   What do you want the wizard to do?
   - Install the software automatically [Recommended]
   - Install from a list or specific location [Advanced]

   Click Next to continue.

3. The NDIS driver is installed.
4. The NDIS driver currently does not have a digital signature from Microsoft, so Windows XP may show a warning message. Click **Continue Anyway** to proceed with driver installation. NEC has confirmed that this driver successfully operates in Windows XP.

5. Click **Finish** to complete driver installation.

6. Refer to **Utilities** on page 24 for device configuration.
Driver and Client Utility Update

NEC provides an InstallShield utility to update the driver and Client Utility, if a previous release is installed.

**Caution**  End all the applications before the update of the driver and utility begins. Otherwise, an InstallShield utility may not be normally finished.

To update the NDIS driver and Client Utility

When the NDIS driver and Client Utility have been previously installed, insert the Wireless LAN Card into the PC card slot. Follow these steps to update the NDIS driver and Client Utility:

1. Open the InstallShield Wizard (setup.exe).

2. Choose “Update using same settings as last install”. Click Next to continue.

3. The NDIS driver and Client Utility are updated by the installer.
4. The NDIS driver currently does not have a digital signature from Microsoft, so Windows XP may show a warning message. Click **Continue Anyway** to proceed with driver installation. NEC has confirmed that this driver successfully operates in Windows XP.

5. Click **Finish** when the InstallShield Wizard is finished.

**Driver and Client Utility Uninstallation**

You can also use the InstallShield Updater to uninstall the NDIS driver and Client Utility application and remove them from the Device Manager. For complete information on uninstalling the NDIS driver and Client Utility application, refer to **Driver and Client Utility Uninstallation** on page 13.
4. Utilities

Use the Client Utility (WCUI) to configure the device driver. The Client Utility provides extensive online help to aid in configuring the device.

You can display the Client Utility by clicking the Start button and choosing Programs > Wireless Tool > WCUI. The Client Utility tray icon is displayed in the right side of the Toolbar. Launch the Client Utility by double-clicking the tray icon, or by right-clicking the tray icon and selecting Open Client Utility.

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**Cautions Cautions on security when using wireless LAN products**

With a wireless LAN, radio waves are used instead of LAN cables for the exchange of data between the wireless access points (computers, etc.), offering the advantage that LAN connections can be made freely within the range of the radio waves.

On the other hand, the radio waves reach all points within this range, regardless of walls or other obstacles, possibly resulting in the problems described below if the proper security measures are not taken.

- **Contents of transmissions may be intercepted**
  Malicious third parties may purposely intercept the radio waves and steal information contained in the transmissions, including such personal information as ID numbers, passwords, credit card numbers, e-mail messages, etc.

- **Improper intrusions**
  Malicious third parties may without permission access the personal or company network and steal personal or confidential information, pretend to be someone else and leak incorrect information, rewrite information that has been intercepted, introduce computer viruses or otherwise damage data or the system, etc.

Wireless LAN cards and wireless access points generally include security measures for dealing with these problems. Making the proper security settings before using the products can reduce the risk of such problems arising.

We recommend that you fully understand the problems that can arise when using the products without making the security settings, then that you make the security settings based on your own decision and at your own discretion.