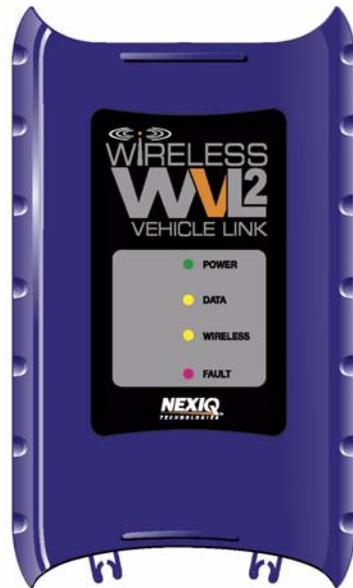


*WVL2™*  
*Installation and*  
*Setup Manual*



---

*WVL2™ Installation and Setup Manual*

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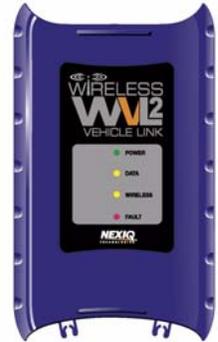
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# Chapter 1

## Introducing the Wireless Vehicle Link 2



- ▼ *WVL2 Components, page 2*
- ▼ *Product Specifications, page 4*
- ▼ *System Requirements, page 5*
- ▼ *WVL2 Device, page 6*

The wireless Vehicle Link 2 (WVL2) is a hardware device that enables your PC/laptop to retrieve vehicle information wirelessly via the 802.11 b/g specification. Once configured, the WVL2 interfaces with your PC, enabling you to use specific PC applications to perform vehicle diagnostics.

This chapter introduces the WVL2 and provides details regarding the communication modes available to you to interface with your PC/laptop.

## WVL2 Components

The following illustration details the WVL2 components:



Figure 1.1 WVL2 Components

## Component Checklist

The following components are included with your WVL2 kit. Be sure you have all the items before installing and setting up the WVL2 on your PC/laptop.

- ✓ Carrying Case
- ✓ Wireless Vehicle Link 2 (WVL2)
- ✓ WVL2 Drivers and Utilities Installation CD
- ✓ 6 & 9-pin Deutsch Y Cable (PN 405048)
- ✓ 15 ft. USB Cable
- ✓ WVL2 Installation and Setup Manual
- ✓ Adapter Guide for the WVL2

## Product Specifications

The WVL2 is configured with the following specifications:

Feature	Data
Physical Dimensions	1.25" H x 4.0" W x 6.75" L (32 mm x 102 mm x 171 mm)
Weight	.42 lb. (0.19 kg)
Power Requirements	6.5 to 32 VDC, 5 Watts Max
Operating Temperature	0° to 70° C (32° to 158° F)
Vehicle Protocols Supported	<ul style="list-style-type: none"> <li>• ALDL (9600-baud systems)</li> <li>• J1708/J1587</li> <li>• J1939/J2284 CAN</li> <li>• J1850 (VPW and PWM)</li> <li>• ISO 9141</li> <li>• KWP2000</li> <li>• ISO-15765</li> <li>• ATEC 1</li> </ul>
Wireless Communication	TCP/IP over 802.11 b/g
Wired Communication	USB
PC Drivers	TMC RP1210A compliant TMC RP1210B compliant J2534
Vehicle Connector	DB15F

## System Requirements

Be aware of the following system requirements:

Component	Requirement
IBM PC Compatible Computer	<ul style="list-style-type: none"><li>• Pentium M 4 1.7GHz processor</li><li>• RAM: 512MB</li><li>• 300 MB available hard drive storage space</li><li>• Internal wireless network card, or wireless network slot available</li><li>• CD drive</li><li>• USB port</li><li>• 1024 x 768 screen resolution and a display setting of "normal" size (96 dpi)</li></ul>
Operating System	Windows®: <ul style="list-style-type: none"><li>• XP (Service Pack 2/3)</li><li>• Windows 7</li></ul>

**NOTE:**



---

If your PC/laptop does not have an internal wireless network card, you will need to purchase an external wireless network card.

---

## WVL2 Device

The following illustration details the features of the WVL2 diagnostic device:

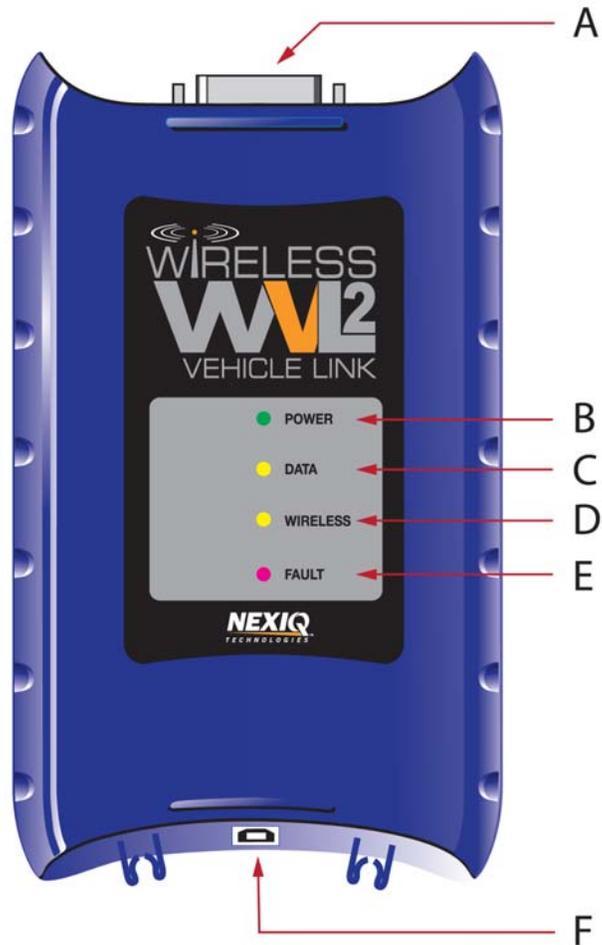


Figure 1.2 *Wireless Vehicle Link 2 (WVL2)*

### Legend

**A—Vehicle Port**

Connects the WVL2 to a vehicle.

**B—Power LED**

Lights up green when the WVL2 receives power.

**C—Data LED**

Lights up yellow when the WVL2 receives data from the vehicle.

**D—Wireless LED**

Blinks yellow whenever the WVL2 is connected wirelessly. The LED blinks faster for a strong connection, and slower for a weak connection.

**E—Fault LED**

Lights up red when a problem is detected.

With a wireless connection, the **Fault LED** and the **Wireless LED** work together in the following way:

LED Behavior	Fault Condition
Both LEDs off	No access point or other ad hoc card found
Both LEDs blinking at a one second rate	No SSID found
Both LEDs blinking alternately at a one second rate.	No IP address found

**F—USB Port**

Connects the WVL2 to your PC/laptop.

**NOTE:**

For additional information on trouble shooting LED behavior, refer to *Chapter 5: WVL2 Troubleshooting Information*, later in this manual.

# Chapter 2

## Setting Up Wireless Communication



- ▼ *Installation Process Flowchart (Wireless), page 10*
- ▼ *Outline of Installation and Setup Process, page 11*
- ▼ *Step 1: Install the WV2 Drivers and Utilities, page 12*
- ▼ *Step 2: Configure the Wireless Network Card, page 22*
  - ▼ *Windows XP (Service Pack 2/3), page 23*
  - ▼ *Windows 7, page 33*
- ▼ *Step 3: Connect to a Vehicle, page 45*

This chapter provides information you need to get started, including instructions on installing all necessary software files.

## Installation Process Flowchart (Wireless)

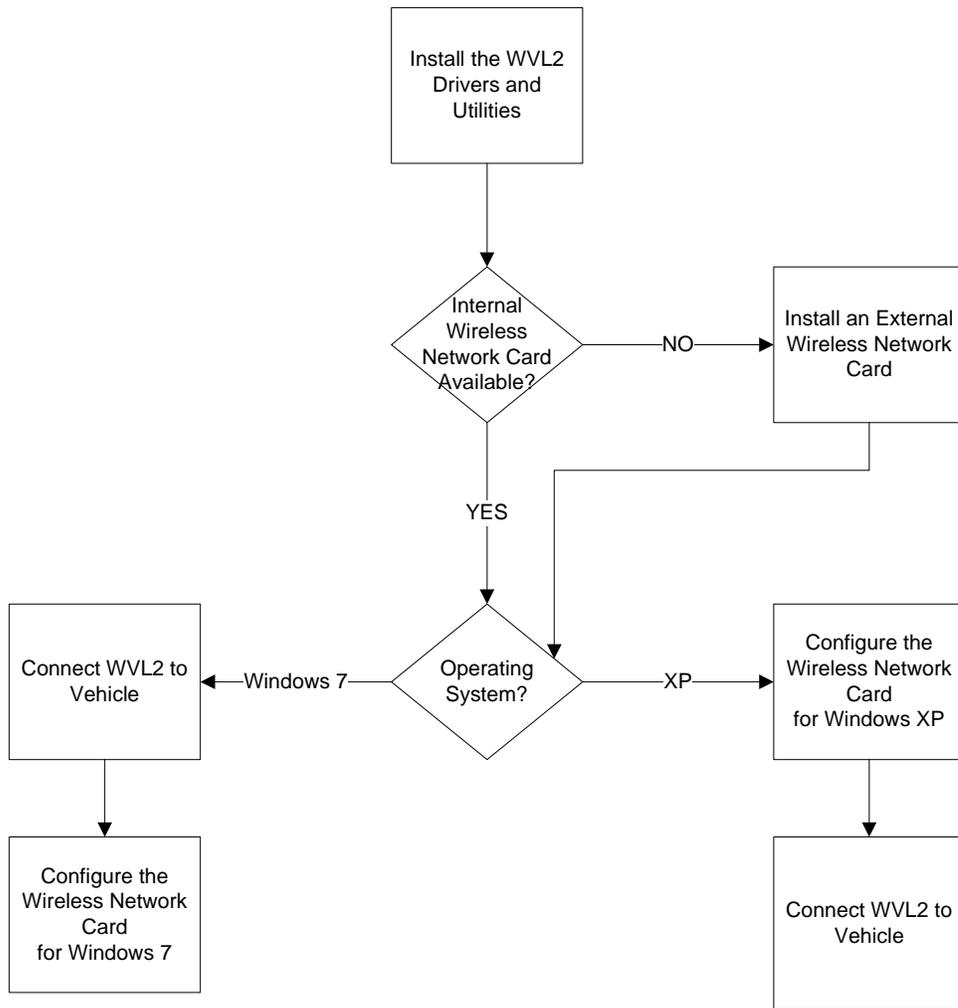


Figure 2.1 Wireless Installation Process Flowchart

## Outline of Installation and Setup Process

**Step 1:** Install the WVL2 Drivers and Utilities.

**Step 2:** Configure the Wireless Network Card and setup a peer-to-peer (ad hoc) network to connect to the WVL2.

Depending on your operating system, choose one of the following:

- Windows® XP (Service Pack 2/3)
- Windows® 7

**Step 3:** Connect the WVL2 to a Vehicle.

**NOTE:**



---

For assistance in setting up encryption, please contact Customer Support at 1-800-639-6774.

---

## Step 1: Install the WVL2 Drivers and Utilities

This section provides instructions for installing the WVL2 drivers and utilities.

**NOTE:**



---

If you have previously installed a WVL2, you must close the WVL2 Explorer. Right-click on the WVL2 icon in your laptop's system tray and select "Exit WVL2 Explorer."

---

To install the WVL2 drivers and utilities:

- 1 Close any programs that are currently running, and place the WVL2 Drivers & Utilities CD in your PC's CD/DVD-ROM drive.

**IMPORTANT:**



---

If your network has a firewall (i.e., a system designed to prevent unauthorized access to or from a private network), contact your local IT manager and request that he or she assist you in opening Port 9294 UDP.

If you are not sure if you have a firewall installed, contact your local IT manager prior to installing this product.

If you do not have a firewall installed, you don't need to do anything.

---

The **WVL2 Drivers Setup Wizard Welcome** screen is displayed.

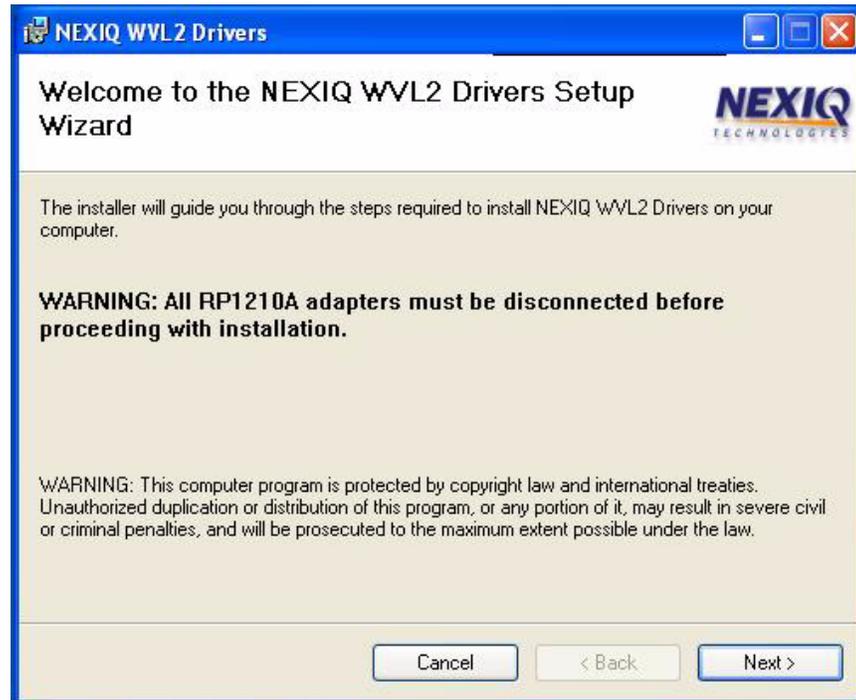


Figure 2.2 Setup Wizard Welcome Screen

**WARNING:**



You must disconnect all RP1210A adapters prior to proceeding with the installation.

- 2 Click **Next**.

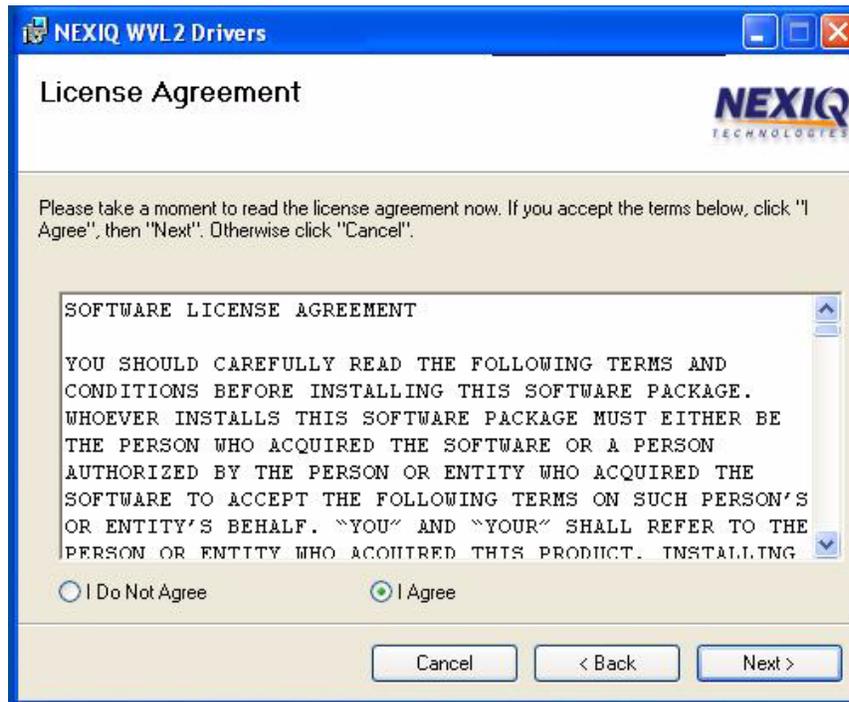


Figure 2.3 WVL2 License Agreement

- 3 Read the information displayed on the **License Agreement** screen (using the scroll bar to view the entire display).
- 4 Click the **I Agree** radio button.
- 5 Click **Next**.

The **Select Installation Folder** screen is displayed, indicating the location where the drivers will be installed.

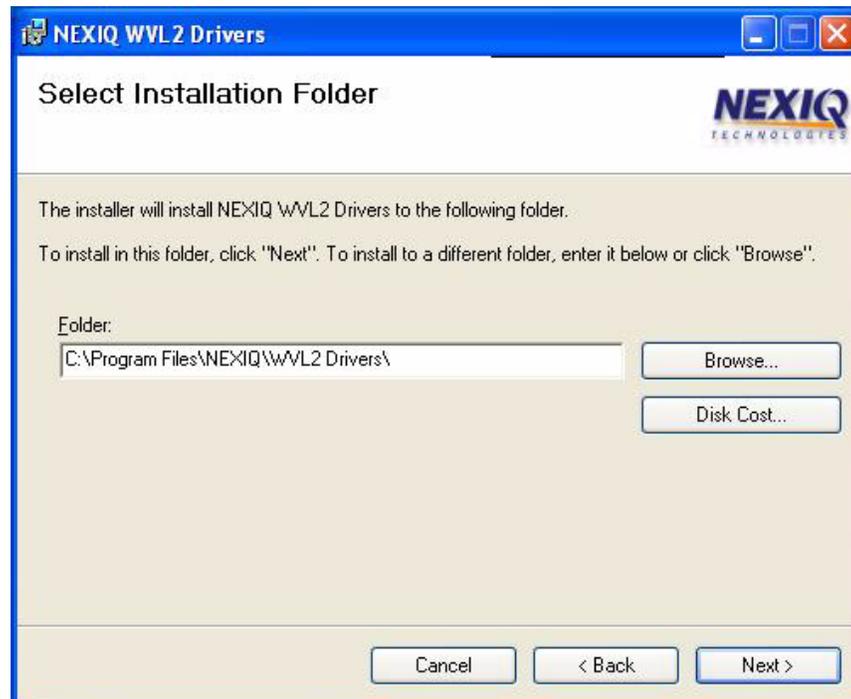


Figure 2.4 *Select Installation Folder*

**NOTE:**

 If you want to install the drivers in a location other than the default, click the **Browse** button. The default is recommended.

You can also view available disk space and compare that to the space required for the drivers, by clicking the **Disk Cost** button.

6 To accept the default location, click **Next**.

The **Confirm Installation** screen is displayed.

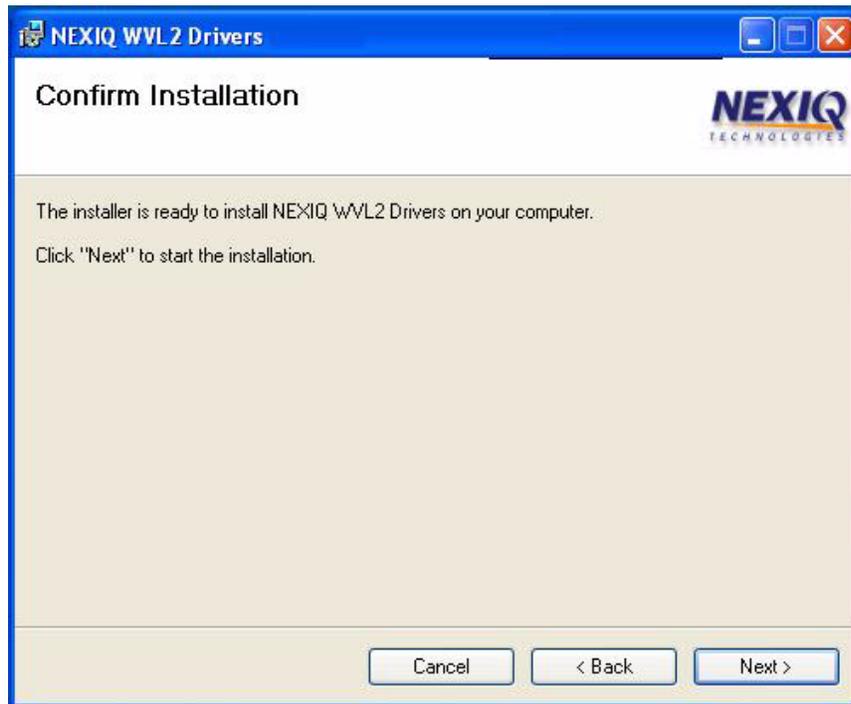


Figure 2.5 *Confirm Installation*

- 7 Click **Next** to continue.

The installation process continues.

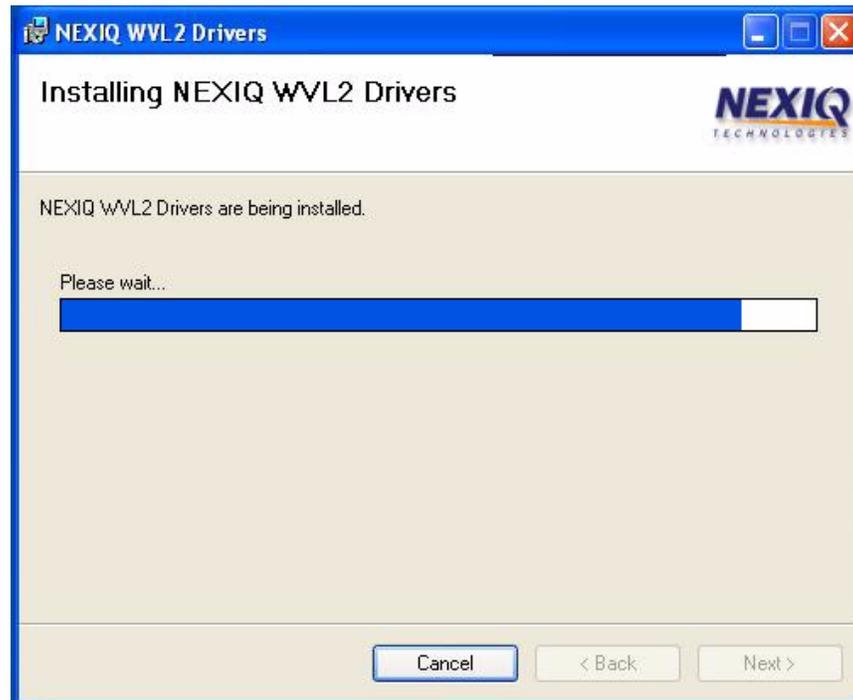


Figure 2.6 *Installing WVL2 Drivers*

This may take a few seconds; a status bar keeps you informed of installation progress.

If you are running Windows 7, the following screen may appear.



Figure 2.7 Windows Security Screen

If the Windows Security screen appears, select **Install this driver software anyway**. Then click **Next**.

The **Installation Complete** screen is displayed.

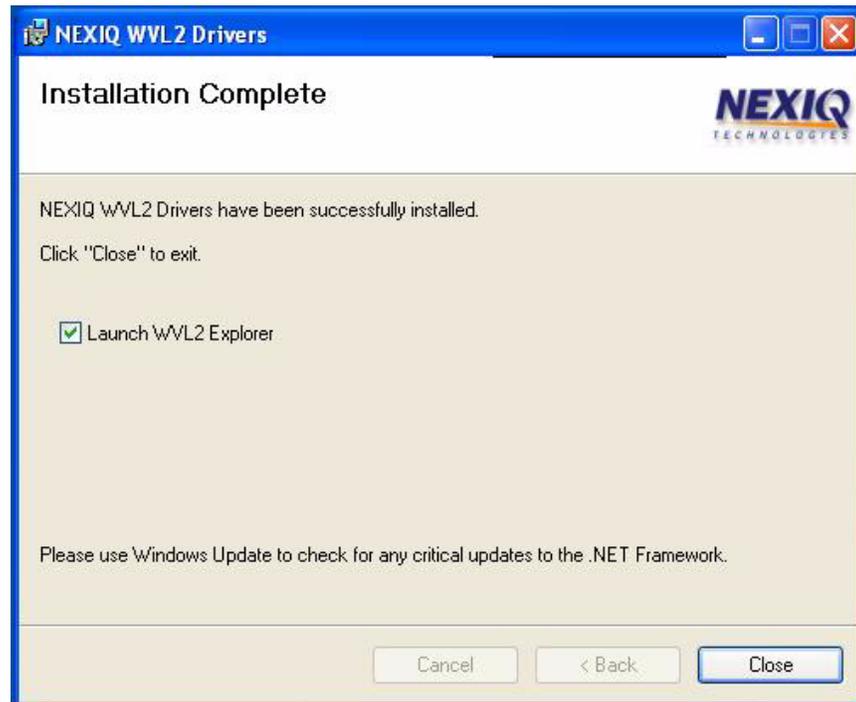


Figure 2.8 *Installation Complete*

8 Click **Close**.

The WVL2 Drivers Setup Wizard closes and the following dialog box opens.

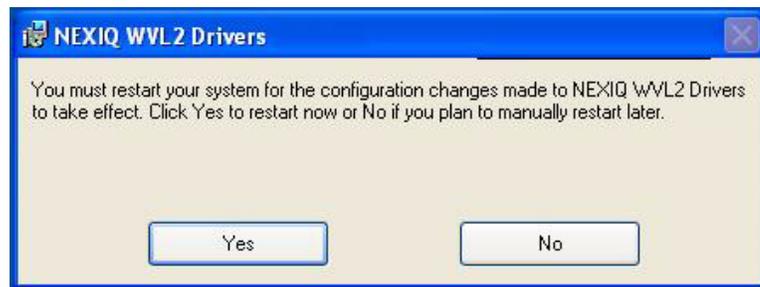


Figure 2.9 *Restart Message*

9 Click **Yes**.

The following **Windows Security Alert** may appear.



Figure 2.10 *Windows Security Alert*

If the Windows Security Alert appears, click **Unblock**.

If you are running Windows 7, the following screen may appear:



Figure 2.11 Windows 7 Security Alert

Make sure both check boxes are checked, and click **Allow Access**.

- 10 Remove the **WVL2 Drivers & Utilities CD** from your CD-ROM drive.
- 11 Move on to **Step 2: Configure the Wireless Network Card**, next in this manual.

## Step 2: Configure the Wireless Network Card

This section provides instructions for configuring the wireless network card (internal or external) for Windows XP (Service Pack 2/3) and Windows 7. It also guides you through setting up a network in **ad hoc mode** (peer-to-peer) to connect to the WVL2.

**NOTE:**



---

To set up a network in **infrastructure mode**, contact your local IT administrator. Due to numerous configuration variables involved in infrastructure mode, our Customer Support specialists cannot assist you in this endeavor.

---

Please refer to the instructions appropriate for your system.

- Windows XP (Service Pack 2/3) (see page 23)
- Windows 7 (see page 33)

**NOTE:**



---

The wireless network card you use to connect to the WVL2 should be reserved for that purpose only. Other wireless network cards/adapters can be used to connect to the Internet and/or your local network.

---

**NOTE:**



---

For assistance in setting up encryption, please contact Customer Support at 1-800-639-6774.

---

## Windows XP (Service Pack 2/3)

If your PC is running Windows XP (Service Pack 2/3), use the instructions below to set up a peer-to-peer (ad hoc) network to connect to the WVL2.

To configure the wireless network card for Windows XP:

- 1 Navigate to your PC's desktop.
- 2 Locate the Start button (found in the lower left corner of the display).
- 3 Click **Start**.

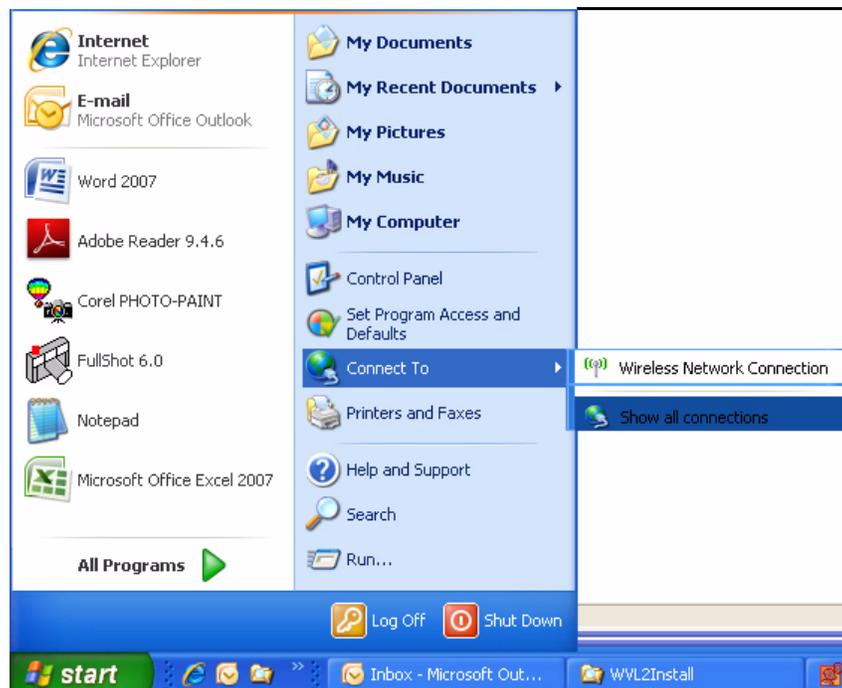


Figure 2.12 Opening network and Internet connections

- 4 Click **Connect To**.

### NOTE:

 If your Windows toolbar is set to "Classic," select **Start** ▶ **Settings**  
▶ **Connections**

- 5 Click **Show all connections**.

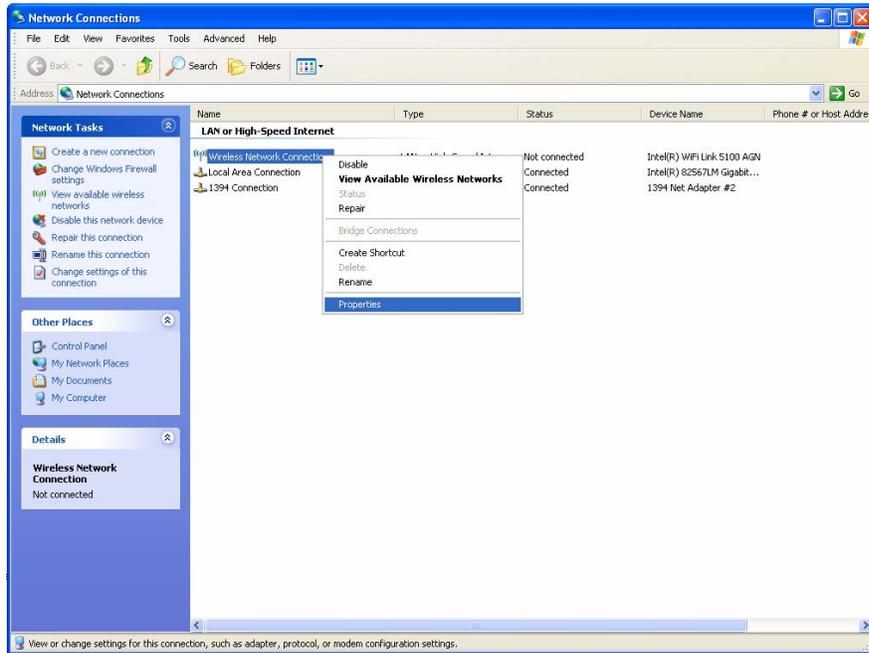


Figure 2.13 Network Connections

- 6 Right-click on the **Wireless Connection** you plan on using for this network.

**NOTE:**



If there is more than one wireless network, be sure to select the card that you plan to use for this network.

- 7 Click **Properties**.

The **Wireless Network Connection Properties** page is displayed.

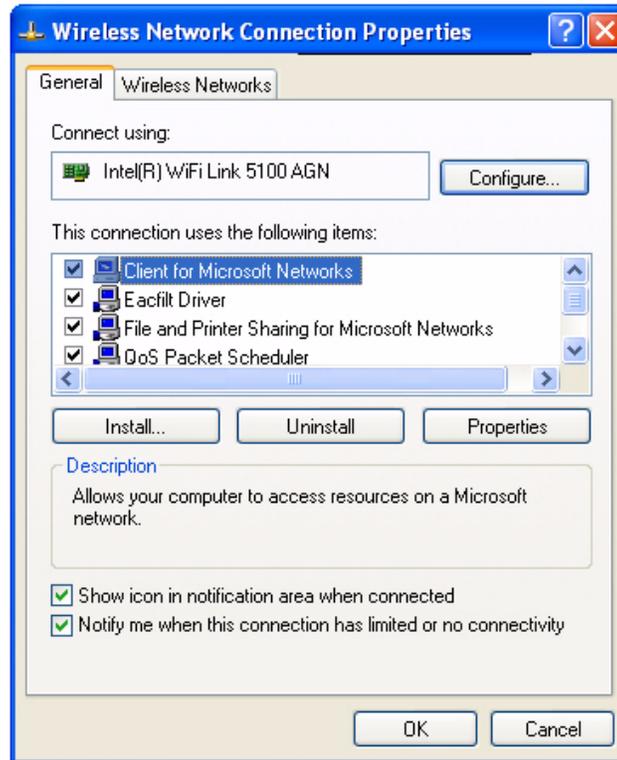


Figure 2.14 *Wireless Network Connection Properties*

- 8 Under **Connect Using:** (at the top of the screen), be sure that the card you plan on using is showing.
- 9 Scroll to and select **Internet Protocol (TCP/IP)**.
- 10 Click **Properties**.

The **Internet Protocol Properties** page is displayed.

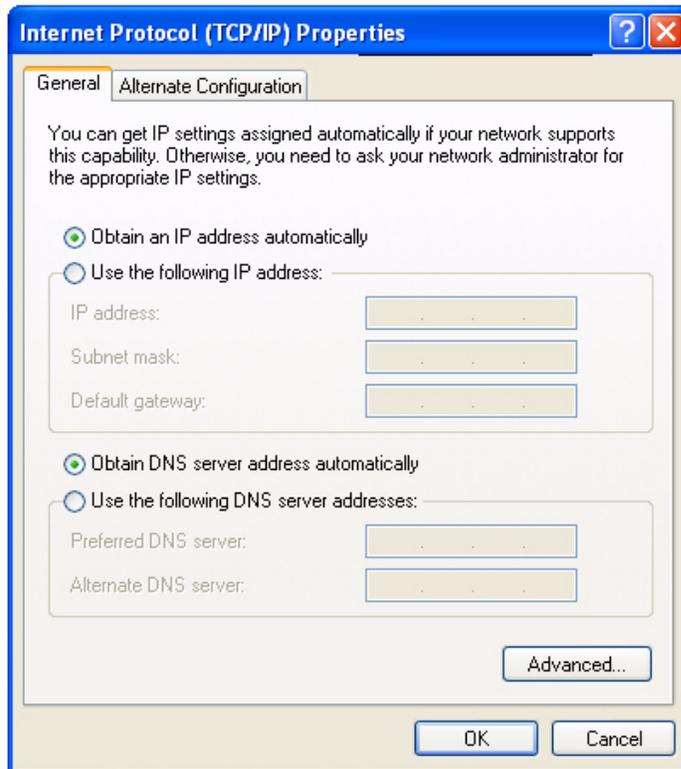


Figure 2.15 Internet Protocol (TCP/IP) Properties

- 11 Click **Use the following IP address**.
- 12 In the **IP Address** box, type the first three segments of the IP address, as follows: **192.168.123**
- 13 Type the last segment of the IP address, using a value between 1 and 100. *For example*, a properly configured IP address reads: 192.168.123.75

**NOTE:**



---

If setting up multiple PCs, be sure that each PC has a different number in the last segment of the IP address. *For example*: PC 1 = 192.168.123.75  
PC 2 = 192.168.123.76

---

- 14 Click inside the **Subnet mask:** field. The field should be automatically populated with a value (see the following sample screen).

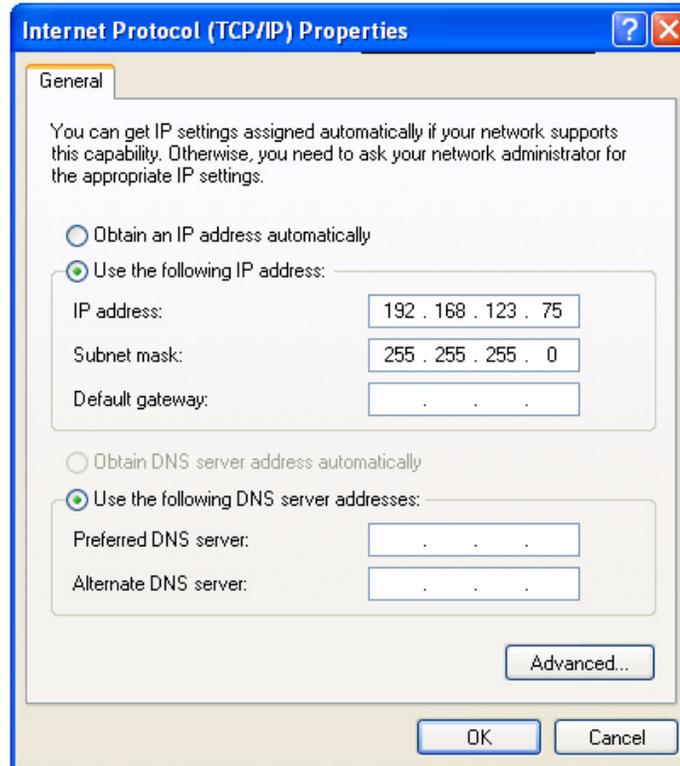


Figure 2.16 Sample Internet Protocol (TCP/IP) Properties screen

- 15 If a value does not automatically appear, type a Subnet mask of **255.255.255.0**
- 16 Click **OK**.
- 17 On the **Wireless Network Connection Properties** screen, click the **Wireless Networks** tab.

The **Wireless Networks** tab is displayed.

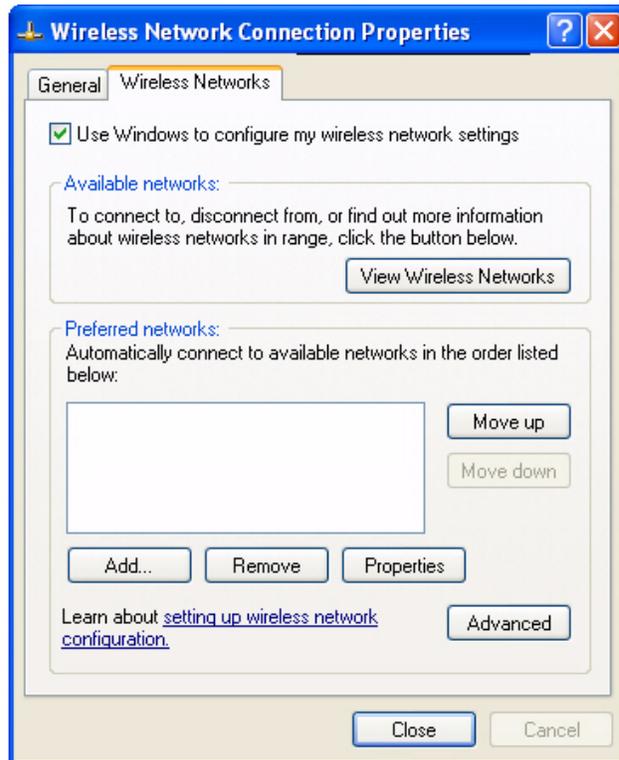


Figure 2.17 *Wireless Networks* tab

- 18 Verify that the **Use Windows to configure my wireless network settings** check box is checked.
- 19 Click **Add**.

If you are running Service Pack 3, the following screen is displayed.

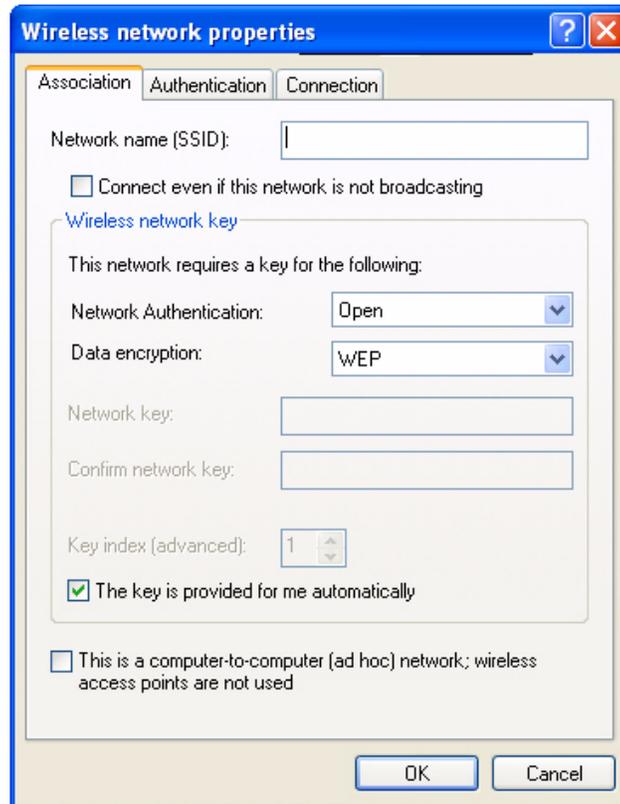


Figure 2.18 *Wireless network properties*

Place a check mark in the **Connect even if that network is not broadcasting** box.

**NOTE:**



The SSID box is case-sensitive, so you must use all capital letters.

- 20 Type **WVL2\_A** in the **Network name (SSID)** text box.
- 21 Be sure that **Network Authentication** is set to **Open**.
- 22 Be sure that **Data encryption** is set to **disabled**.

- 23 Select **This is a computer-to-computer (ad hoc) network** ()

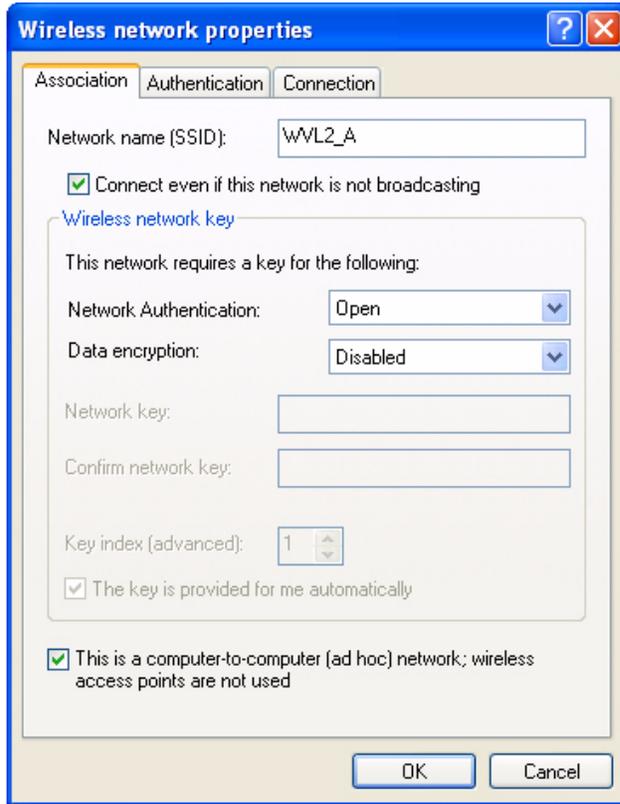


Figure 2.19 WVL2\_A properties

- 24 Click **OK**.

The following message is displayed:



Figure 2.20 Disabled Encryption message

- 25 Click **Continue Anyway**.

The **Wireless Connection Properties** page is displayed.

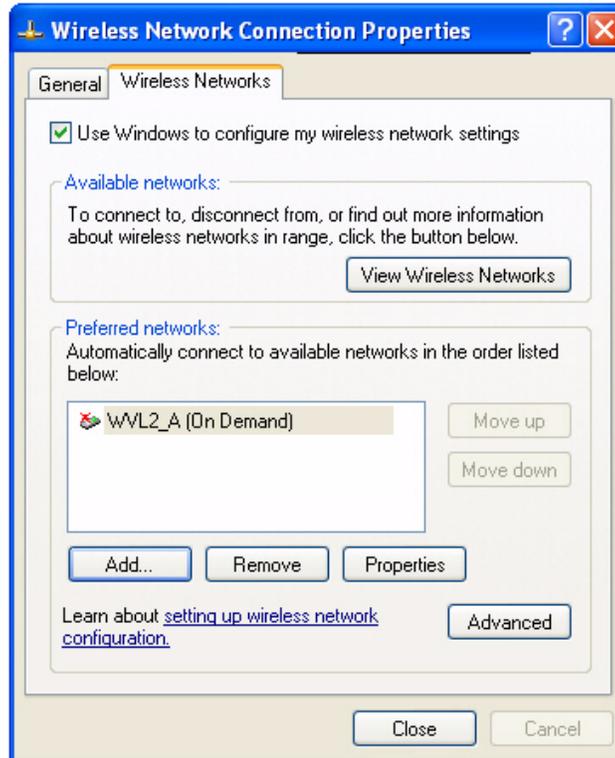


Figure 2.21 *Wireless Network Connection Properties*

26 Click the **Advanced** button.

**NOTE:**



Make sure that you click on the **Advanced button**, not the Advanced tab.

The **Advanced** options screen is displayed:



Figure 2.22 *Advanced options*

- 27 Select the **Computer-to-computer [ad hoc] networks only** option (⊙).
- 28 Be sure that the **Automatically connect to non-preferred networks** check box is **not selected**; if it is selected, click the box to de-select it (☐).
- 29 Click **Close**.
- 30 Click **Close** to close the **Wireless Network Connection Properties** screen.
- 31 Proceed to “**Step 3: Connect to a Vehicle**”, on page 45 of this manual.

## Windows 7

If your PC is running Windows 7, use the following instructions to set up a peer-to-peer (ad hoc) network to connect to the WVL2.

### NOTE:



Use these instructions only if you are running Windows 7.

### IMPORTANT:



Prior to following these instructions, **you must be connected to the vehicle** (see Step 3: Connect to a Vehicle, page 45). The WVL2 must be within 100 ft. of the vehicle to be in range.

### NOTE:



With Windows 7, each time you want to connect to the WVL2 you have to click on the **Network Connection Icon** in the system tray of your PC's desktop (Figure 2.32, page 41).

To configure the wireless network card for Windows 7:

- 1 Navigate to your PC's desktop.
- 2 Locate the **Windows Start Icon** (found in the lower left corner of the display).



Figure 2.23 Windows Start Icon

- 3 Click on the icon.

The **Start Menu** is displayed.



Figure 2.24 Start Menu

4 Select **Control Panel**.

The **Control Panel** is displayed.

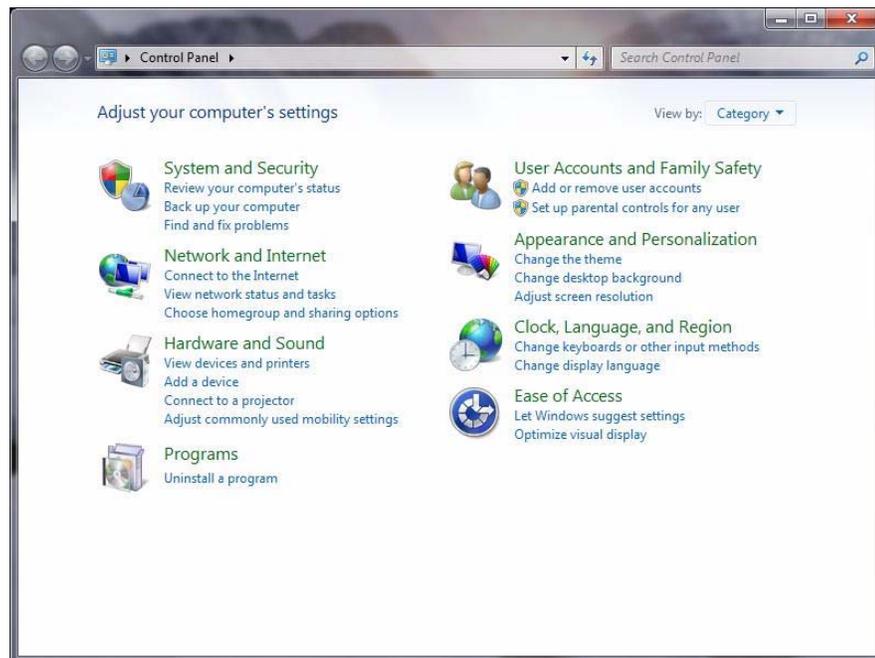


Figure 2.25 Control Panel

5 Click **View network status and tasks**.

The **Network and Sharing Center** screen is displayed.

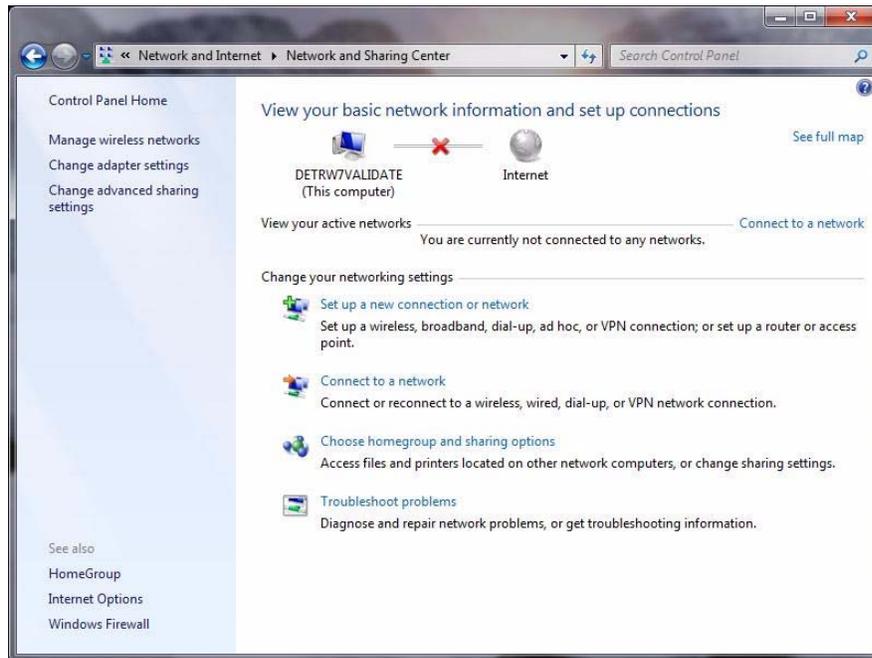


Figure 2.26 Network and Sharing Center Screen

- 6 From the panel on the left, click **Change adapter settings**.

The **Network Connections** screen is displayed.

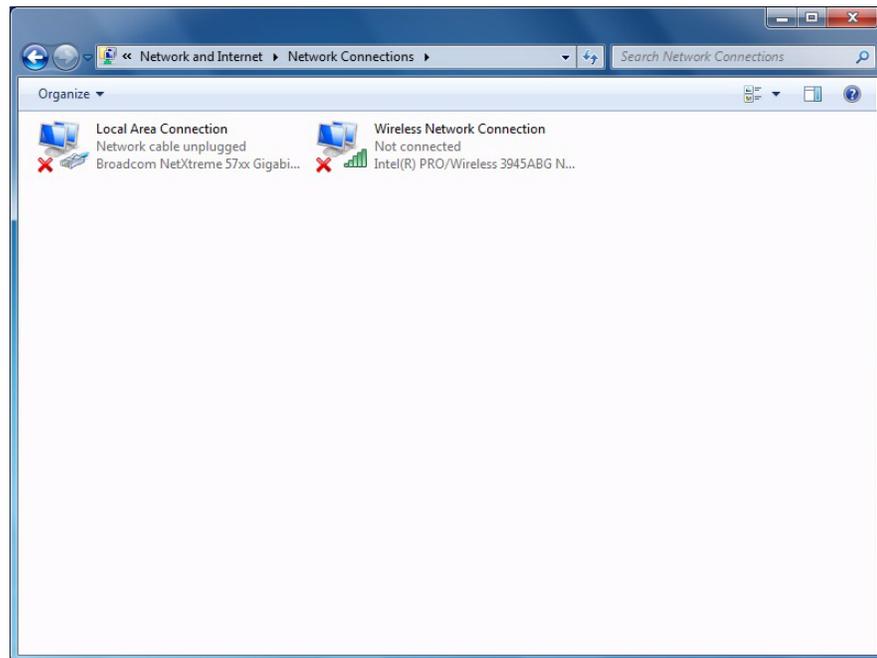


Figure 2.27 Network Connections Screen

7 Right-click **Wireless Network Connection**.

**NOTE:**



---

If there is more than one wireless network, be sure to select the card that you plan to use for this network.

---

A drop-down menu is displayed.

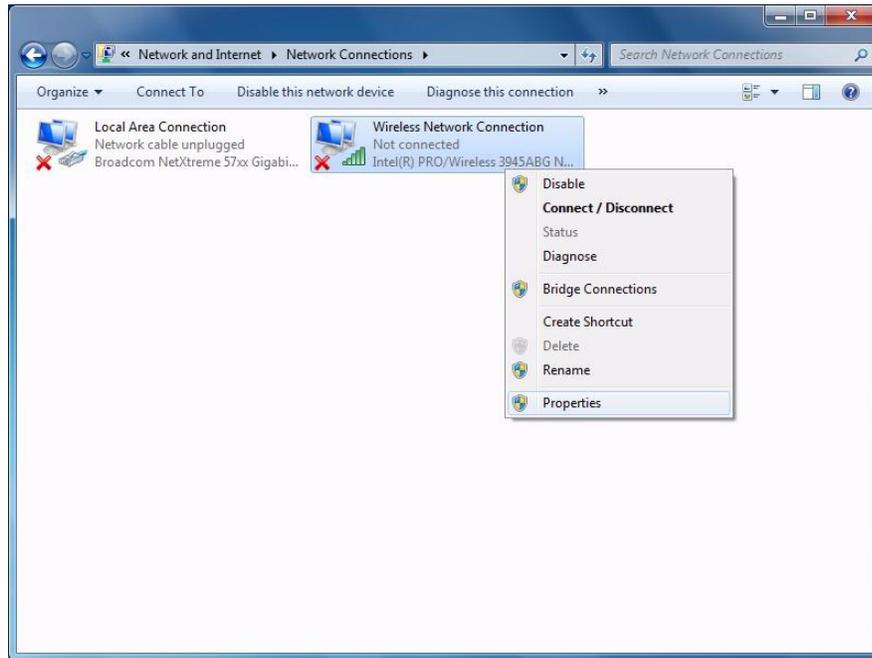


Figure 2.28 Drop-down Menu

8 Select **Properties**.

The **Wireless Network Connection Properties** screen is displayed.

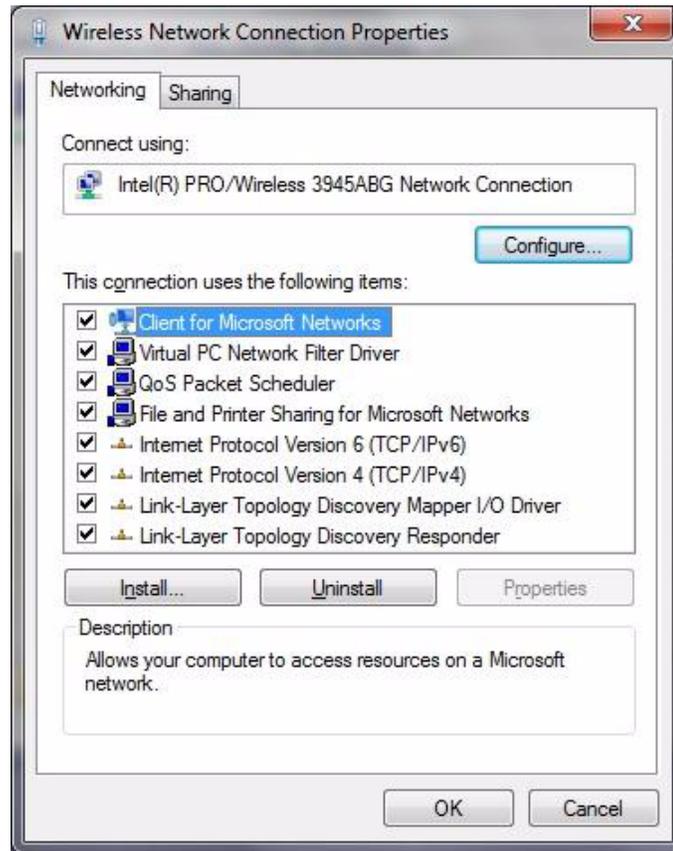


Figure 2.29 Wireless Network Connection Properties

- 9 Double-click on **Internet Protocol Version 4 (TCP/IPv4)**.

The **Internet Protocol Version 4 (TCP/IPv4) Properties** screen is displayed.

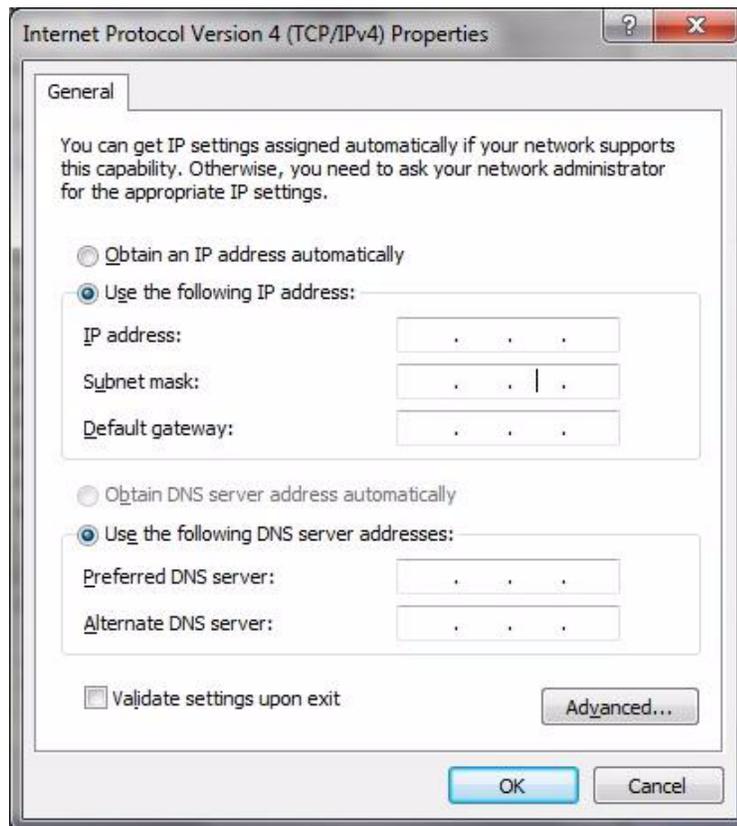


Figure 2.30 Internet Protocol Version 4 (TCP/IPv4) Properties

- 10 If it is not already selected, click the radio button next to **Use the following IP address**.
- 11 In the IP Address box, type the first three segments of the IP address, as follows: **192.168.123**
- 12 Type the last segment of the IP address, using a value between 1 and 100.

For example, the full address would be **192.168.123.75**

**NOTE:**



If setting up multiple PCs, be sure that each PC has a different number in the last segment of the IP address. *For example:* PC 1 = 192.168.123.75 and PC 2 = 192.168.123.76

- 13 In the Subnet mask field, enter **255.255.255.0**

The screen should look like the following:

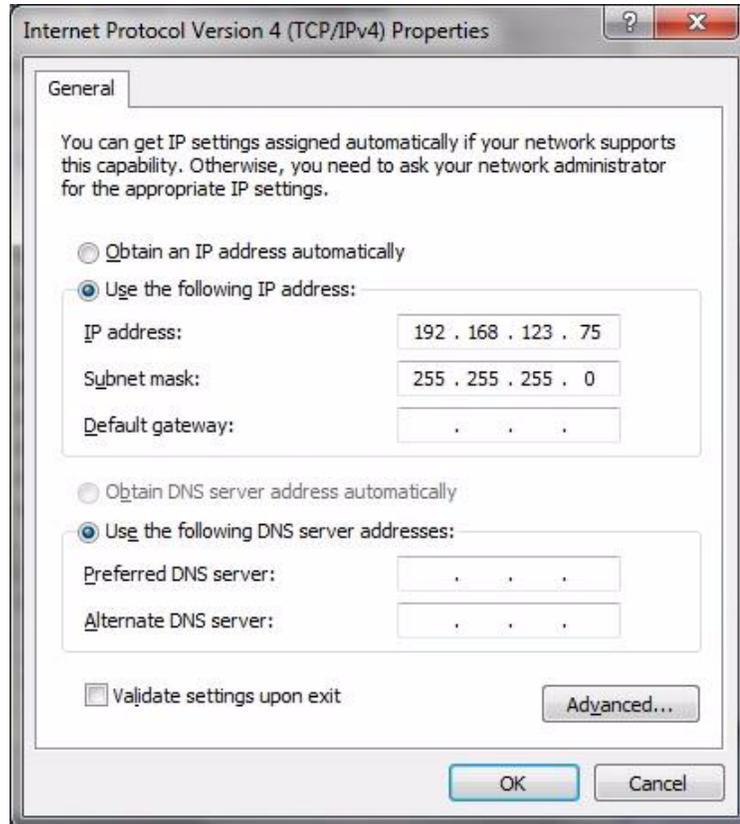


Figure 2.31 IP Address and Subnet Mask Entered

- 14 Click **OK**.
- 15 Click **OK** again to close the Wireless Network Connection Properties screen (Figure 2.29, page 39).
- 16 Click on the **Network Connection Icon** in the system tray of your desktop.



Figure 2.32 Network Connection Icon

The **Open Network and Sharing Center** is displayed.



Figure 2.33 Open Network and Sharing Center Screen

17 Select **WVL2\_A**.

**NOTE:**



If the WVL2\_A network is *not* displayed, **be sure that you are connected to the vehicle.**

Also, make sure you are within range (i.e., within 100 ft.). You may need to move your laptop closer to the vehicle.



Figure 2.34 Connect Button

- 18 Click the **Connect** button.

The following status message is displayed.

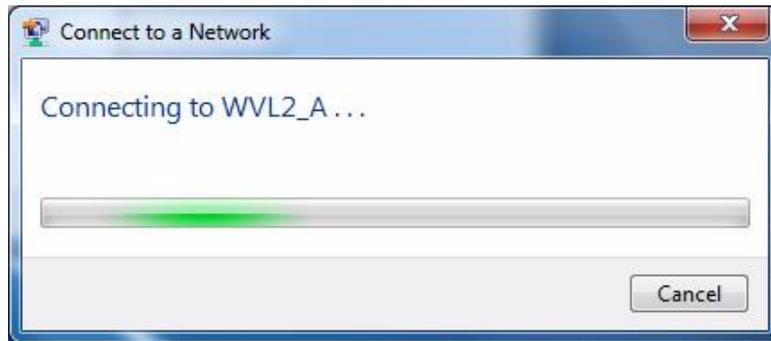


Figure 2.35 Connecting Message

The WVL2 is now configured and ready for use.

**NOTE:**



---

The WVL2 icon now appears in your PC's system tray.

---

**IMPORTANT:**



---

With Windows 7, each time you want to connect to the WVL2 you have to click on the **Network Connection Icon** in the system tray of your PC's desktop (see Step 16 on page 41).

---

## Step 3: Connect to a Vehicle

To connect the WVL2 to a vehicle:

- 1 Connect the **WVL2 to the vehicle** using the adapter cable provided (i.e., the 6- and 9-pin Deutsch Y cable).
- 2 Verify that the following **Notification** message box is displayed.

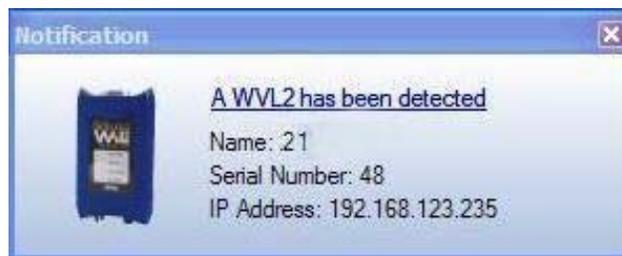


Figure 2.36 Notification: A WVL2 has been detected

The WVL2 is now connected to the vehicle and ready for use. Also, the WVL2 Explorer icon now appears in your PC's system tray.



Figure 2.37 WVL2 Explorer Icon in System Tray

The WVL2 Explorer icon has three states, indicated by the color of the icon:

How the icon looks	What it means
Green Center	A WVL2 has been detected and it is the selected WVL2
White Center	A WVL2 has been detected, but it has not been selected. In most cases, this is an indication that you have more than one WVL2, and one of the devices is not selected.
Grayed Out	No WVL2 has been detected.

# Chapter 3

## Setting Up Wired Communication



- ▼ *Overview, page 48*
- ▼ *Installation Process Flowchart (Wired), page 49*
- ▼ *Setting Up the WVL2 for Wired Communication, page 50*

This chapter provides the information you need to connect the WVL2 to your PC using a USB cable.

## Overview

Although a wireless connection is recommended for most circumstances, you may wish to connect the WVL2 to your PC using a USB cable. The advantage of a wired connection is faster throughput (e.g., you want to use the WVL2 for ECU reprogramming).

Prior to making the connection with the USB cable, you still need to install the WVL2 drivers and utilities if you have not already done so.

**NOTE:**



---

For instructions on installing the drivers, refer to **Step 1: Install the WVL2 Drivers and Utilities** in Chapter 2 of this manual.

---

Once you have installed the WVL2 drivers and utilities, you are ready to connect the WVL2 to a vehicle using a 6- 9-pin Deutsch adapter cable. Next, you connect the WVL2 to your PC using a USB cable. Once the connections have been made, the Found New Hardware Wizard will guide you through necessary steps.

**NOTE:**



---

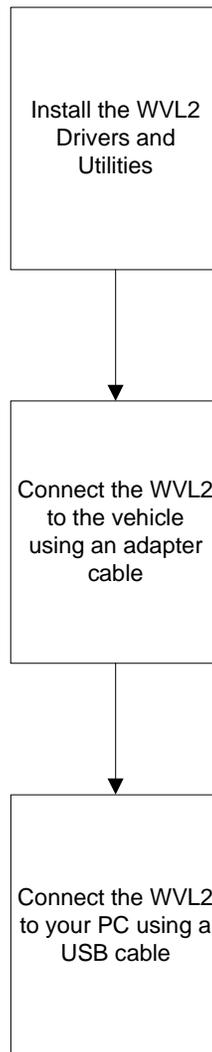
If your PC is connected to the WVL2 using a USB cable, this connection takes precedence over a wireless connection.

---

**Do not connect using a USB cable if you want to operate wirelessly.**

---

## Installation Process Flowchart (Wired)



## Setting Up the WVL2 for Wired Communication

To set up the WVL2 for wired communication:

- 1 If you have not already done so, install the WVL2 drivers and utilities.

**NOTE:**

 For instructions on installing the drivers, refer to **Step 1: Install the WVL2 Drivers and Utilities** in Chapter 2 of this manual.

- 2 Connect the 6- 9-pin Deutsch adapter cable to the vehicle port on the top of the WVL2.
- 3 Connect the other end of the adapter cable to the vehicle.
- 4 Insert the USB cable in the USB port located on the bottom of the WVL2.
- 5 Insert the other end of the USB cable into an available USB port on your PC/ laptop.

The **Found New Hardware** message is temporarily displayed in the lower right corner of your desktop.



Figure 3.1 Found New Hardware Message

The **Found New Hardware Wizard** displays.



Figure 3.2 Found New Hardware Wizard

- 6 Locate the question **Can Windows connect to Windows Update to search for software?**
- 7 Select **No, not at this time.**

**NOTE:**

 This option may not always appear. If it does not appear, move on to Step 8.

- 8 Click **Next.**

You may be prompted to insert an installation disk.

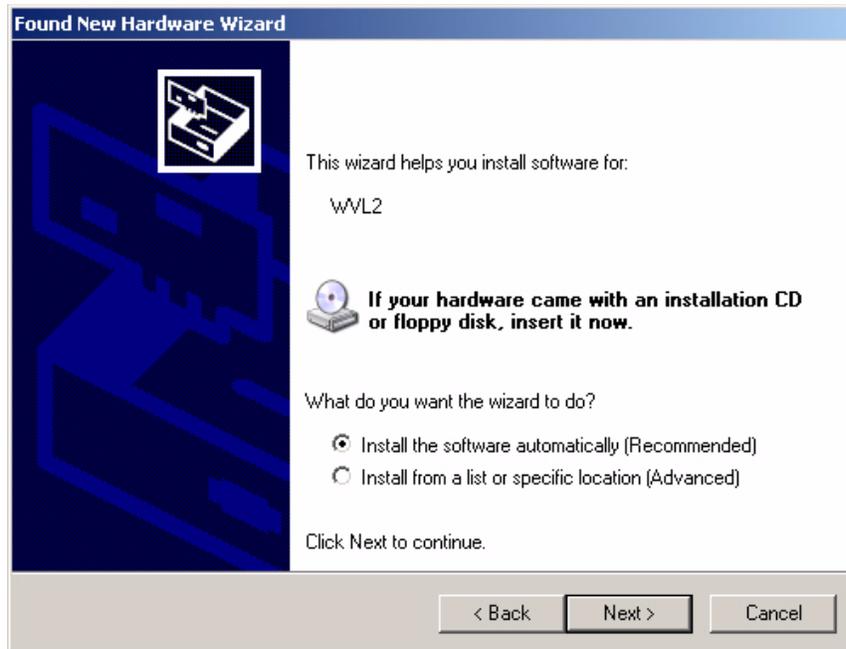


Figure 3.3 Insert Disk screen

- 9 Leave the option **Install the software automatically (Recommended)** selected.

**NOTE:**

 This option may not always appear. If it does not appear, move on to Step 10.

- 10 Click **Next**.

A message is displayed asking you to wait while the wizard completes its task.



Figure 3.4 Please Wait message



Figure 3.5 Completing the Found New Hardware Wizard

- 11 Click **Finish** to close the Found New Hardware Wizard.

- 12 Verify that the following **Notification** message box is displayed.

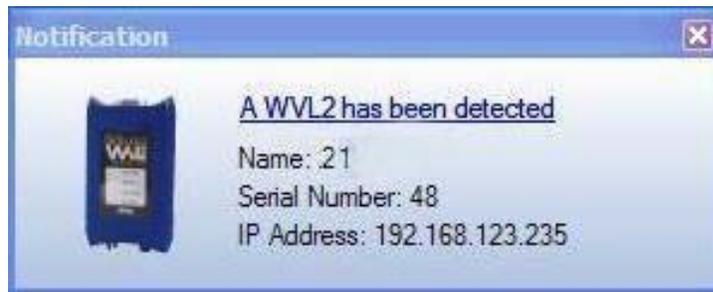


Figure 3.6 Notification: A WVL2 has been detected

The WVL2 is now connected to the vehicle and ready for use.

# Chapter 4

## The WVL2 Explorer



- ▼ *Overview: Using the WVL2 Explorer, page 56*
  - ▼ *Configuration, page 57*
  - ▼ *Firmware, page 59*
- ▼ *The File Menu, page 62*
- ▼ *The Tools Menu, page 63*
  - ▼ *Ping, page 63*
  - ▼ *Options, page 65*
- ▼ *The Help Menu, page 71*

This chapter provides an overview of the features of the WVL2 Explorer.

## Overview: Using the WVL2 Explorer

The WVL2 Explorer provides the following menu options:

- File (page 62)
- Tools (page 63)
- Help (page 71)

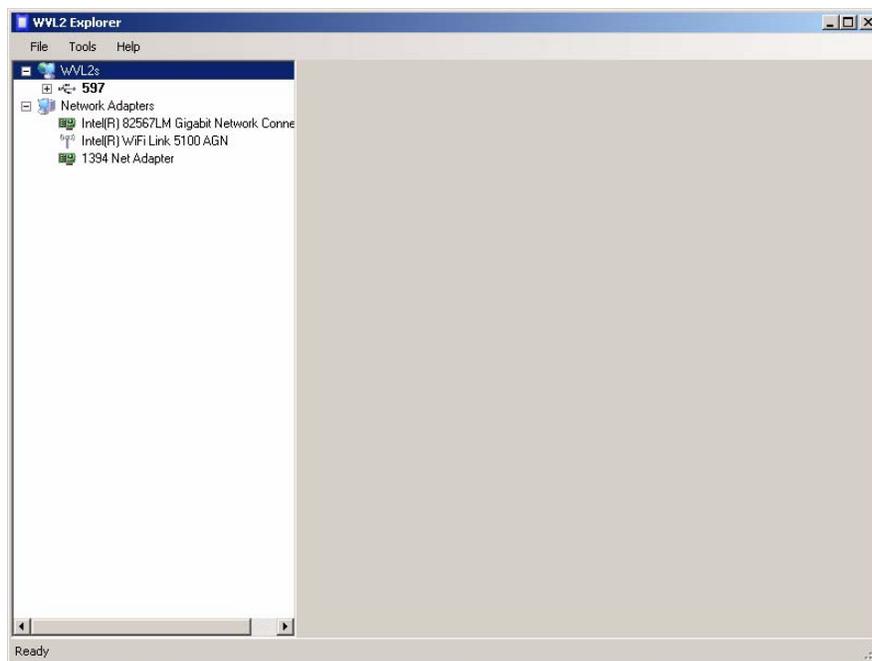


Figure 4.1 WVL2 Explorer

Each menu option includes a number of features. Each of the menu options are discussed in the following sub-sections.

When you click on a WVL2 in the list in the left pane, the following tabs are displayed:

- Configuration
- Firmware

**NOTE:**



You may also see an **Items Requiring Your Attention** tab. For information on this tab, see “Two Conditions to Watch For” in Appendix A, later in this manual.

## Configuration

The **Configuration** tab provides the following information:

- Device Name
- Wireless Settings
- Internet Protocol (TCP/IP) Settings

This information can be useful when troubleshooting network connection problems. You can also start here to set up encryption for your network.

**NOTE:**



---

For assistance with setting up encryption, please contact Customer Support at 1-800-639-6774.

---

To access the Configuration tab:

- 1 Click on a WVL2 from the list located in the left pane of the WVL2 Explorer (e.g., **597**).

The **Configuration** tab is displayed.

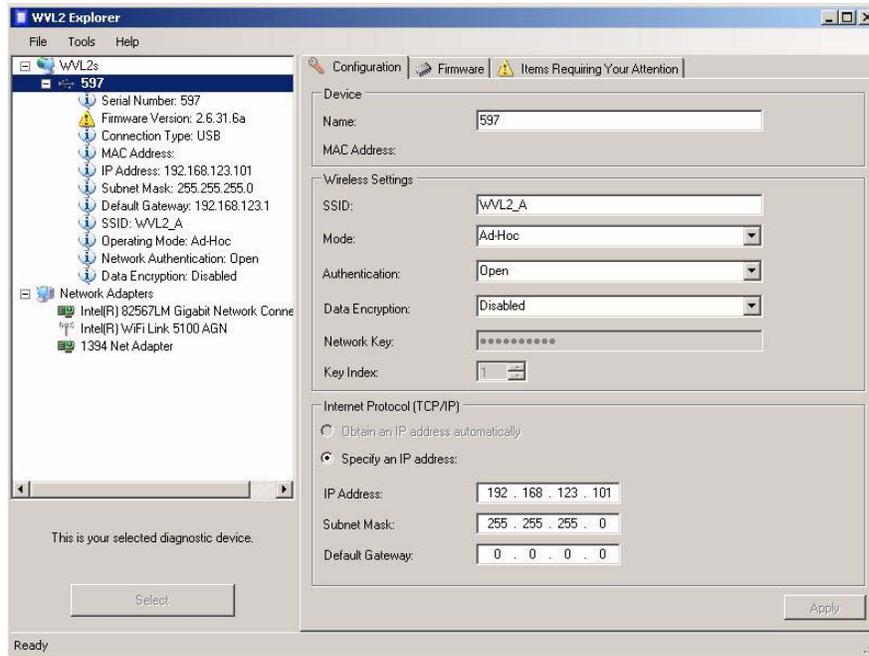


Figure 4.2 Configuration Tab

- 2 Review the information displayed on the Configuration tab.

## Firmware

The **Firmware** tab provides the following information:

- Current Firmware Version
- Firmware Version for Update

This information will aid Customer Support technicians should you require technical support.

To access the Firmware tab:

- 1 Click on a WVL2 from the list located in the left pane of the WVL2 Explorer (e.g., **597**).
- 2 Click on the **Firmware** tab.

The Firmware tab is displayed.

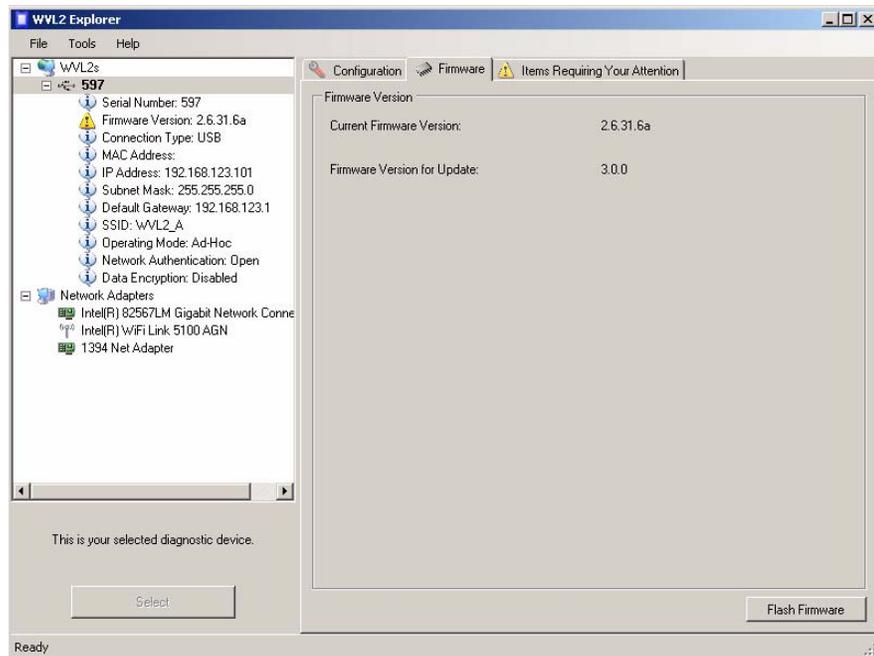


Figure 4.3 *Firmware Tab*

- 3 When the “Firmware Version for Update” number is higher than the “Current Firmware Version” number (as in Figure 4.3), click the **Flash Firmware** button in the lower right corner.

**NOTE:**

 If you need assistance updating the firmware, please contact Customer Support at 1-800-639-6774.

The following message is displayed.

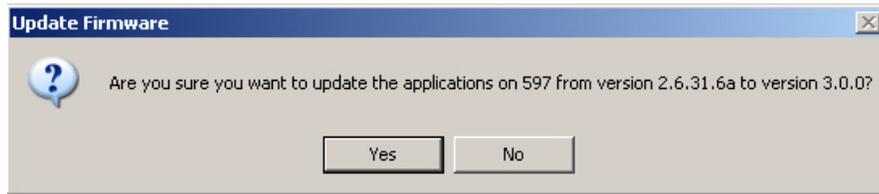


Figure 4.4 *Update Firmware Confirmation Message*

- 4 Click **Yes** to start the firmware update process.

The process may take a few minutes.

When the process is complete, the following message is displayed.



Figure 4.5 *Firmware Update Successful/Power Cycle Message*

- 5 Click **OK** to close the message.
- 6 Disconnect power to the WVL2 unit.

The following message is displayed.



Figure 4.6 *Firmware Update No Longer Detected Message*

- 7 Click **OK** to close the message.

8 Reconnect power to the WVL2 unit.

When the unit has powered up, the **Items Requiring Your Attention** tab is no longer displayed.

The **Firmware** tab indicates that the firmware version is current.

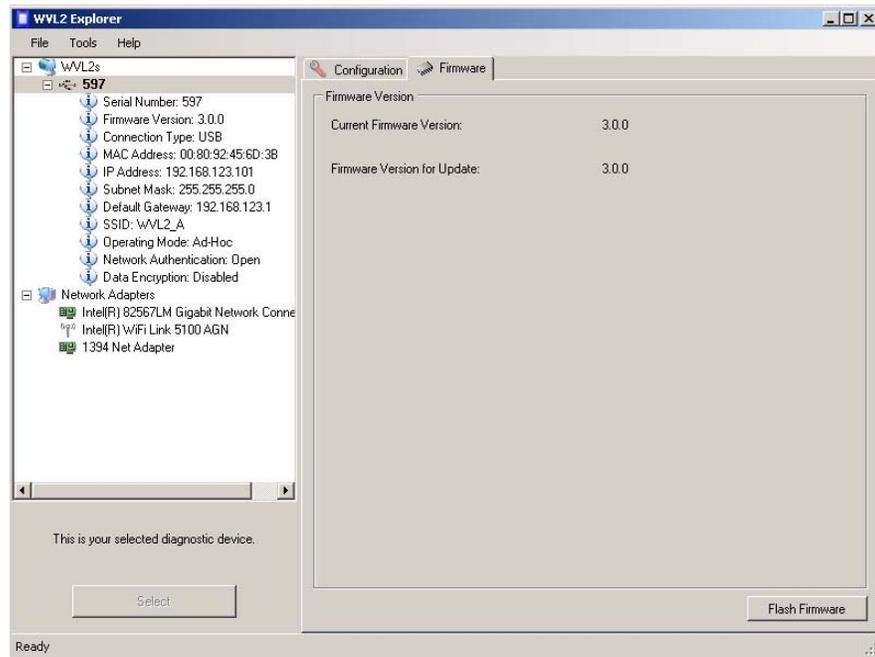


Figure 4.7 Firmware Tab

## The File Menu

The File menu has one feature, Exit. You use the Exit feature to close the WVL2 Explorer.

To exit the WVL2 Explorer:

- 1 Select **File** from the WVL2 Explorer menu bar.
- 2 Select **Exit**.

The WVL2 Explorer closes.

## The Tools Menu

The Tools menu provides the following features:

- Ping
- Options...

### Ping

The Ping feature uses the PING protocol to check for the presence of a device on the network.

To check for a device:

- 1 Select **Tools** from the WVL2 Explorer menu bar.
- 2 Select **Ping**.

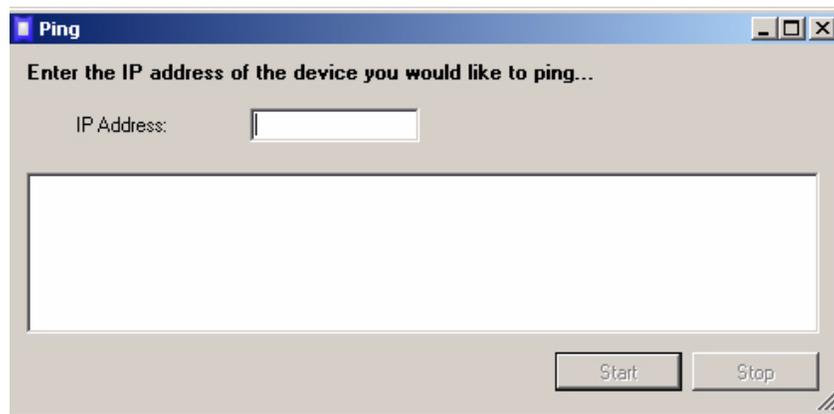


Figure 4.8 Ping Message

- 3 Enter the IP address of the device you want to locate (e.g., **192.168.123.107**).
- 4 Click **Start**.

The WVL2 Explorer searches for the device and, if found, displays the reply.

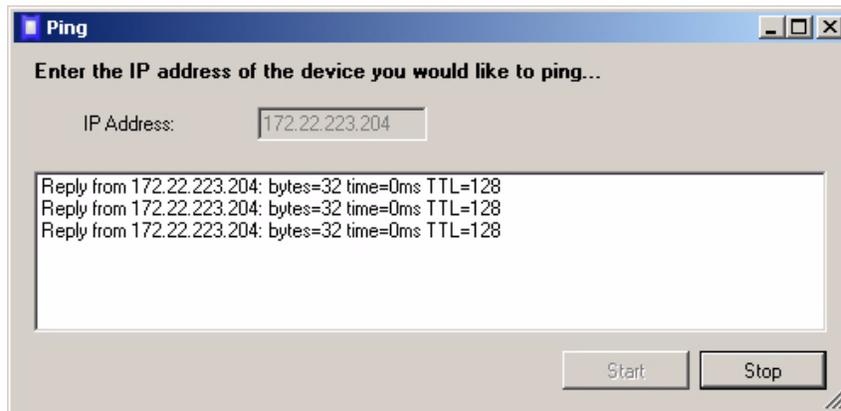


Figure 4.9 A Successful Ping

- 5 Click **Stop**.
- 6 Click the **Close** button on the dialog box.

## Options

The Options feature provides the following features, which are accessible by means of tabs at the top of the Options menu:

- Application
- Connection Manager
- Discovery

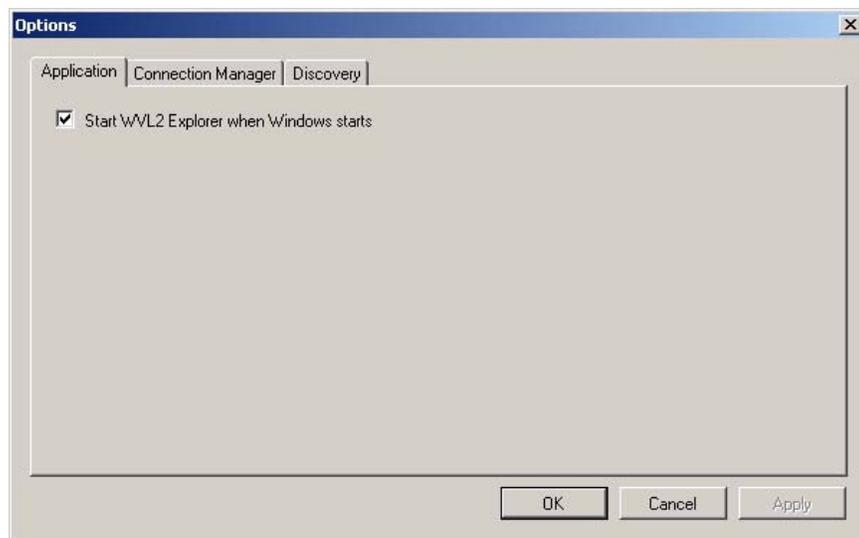


Figure 4.10 Options Menu

## Application Feature

You use the Application feature to manage when WVL2 Explorer opens. The default is to automatically open the WVL2 Explorer when Windows starts.

To change the default and disable this feature:

- 1 Select **Tools** from the WVL2 Explorer menu bar.

2 Select **Options...**

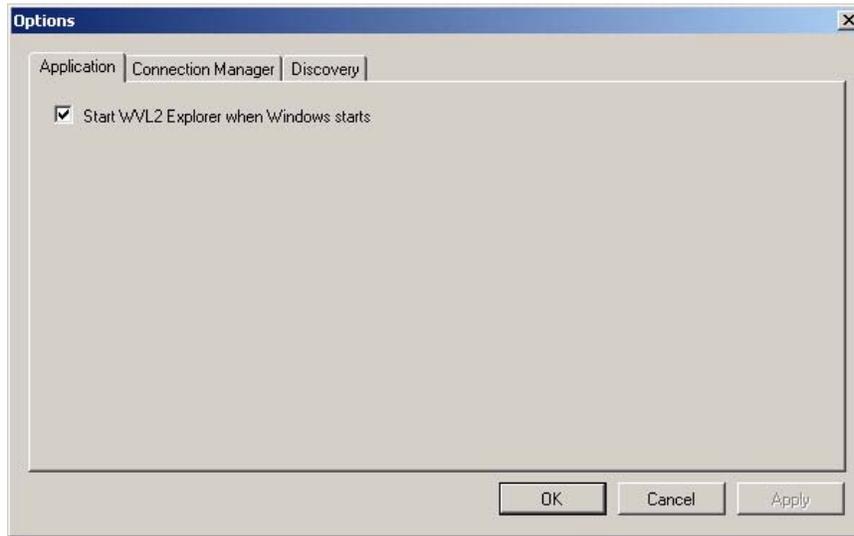


Figure 4.11 Options Menu

- 3 Click on the **check box** to remove the check mark next to the **Start WVL2 Explorer when Windows starts** feature.
- 4 Click **OK**.

### Connection Manager Feature

You use this feature to manage when the Connection Manager is displayed. When this feature is turned on, the Connection Manager is displayed before connecting to a vehicle application.

**NOTE:**



---

This feature can be useful if you have multiple WVL2s.

---

To change the default:

- 1 Select **Tools** from the WVL2 Explorer menu bar.

2 Select **Options...**

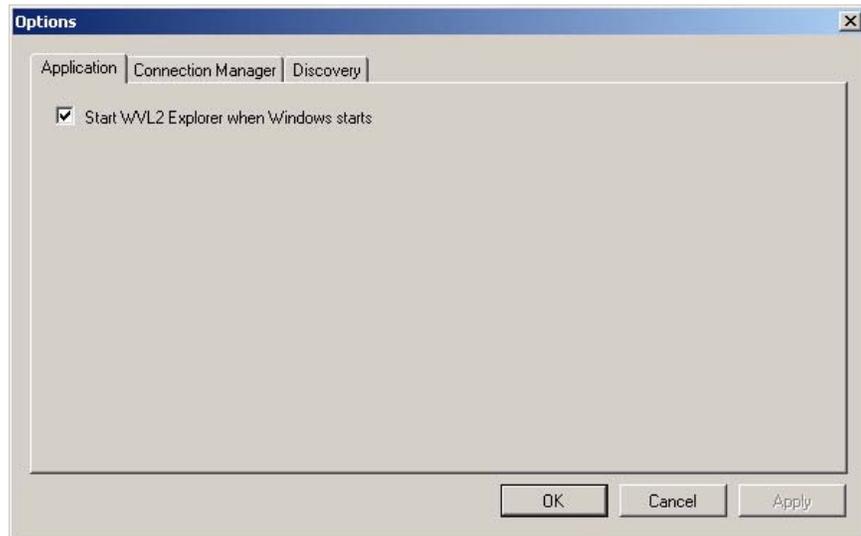


Figure 4.12 Options Menu

3 Select the **Connection Manager** tab.

The Connection Manager tab is activated.

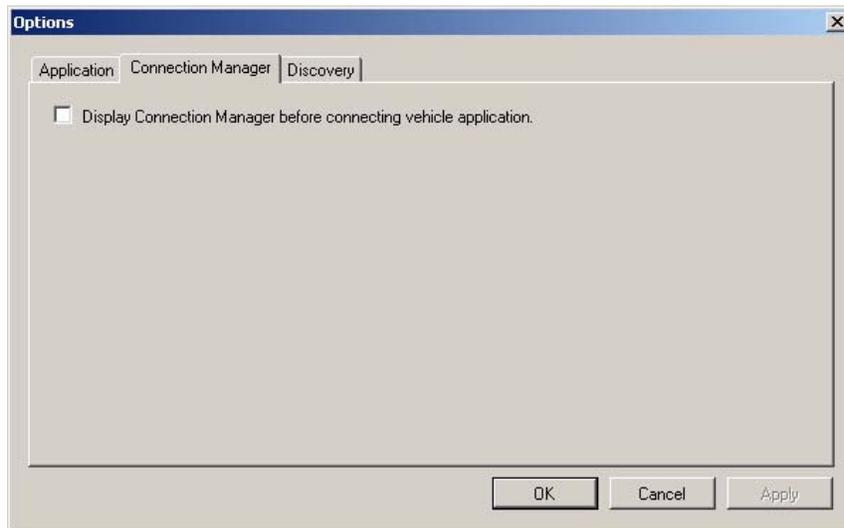


Figure 4.13 Connection Manager

- 4 Click on the **check box** to add a check mark next to the **Display Connection Manager before connecting vehicle application** feature.
- 5 Click **OK**.

## Discovery Feature

You use the Discovery feature to manage when to display the New WVL2 notification message box. The default is to display the notification message box when a new WVL2 is detected.

To change the default:

- 1 Select **Tools** from the WVL2 Explorer menu bar.
- 2 Select **Options...**

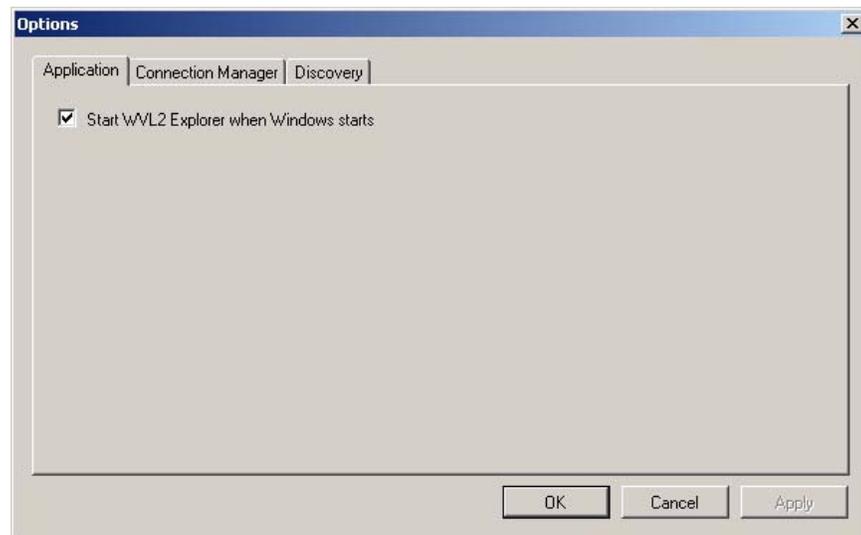


Figure 4.14 Options Menu

- 3 Select the **Discovery** tab.

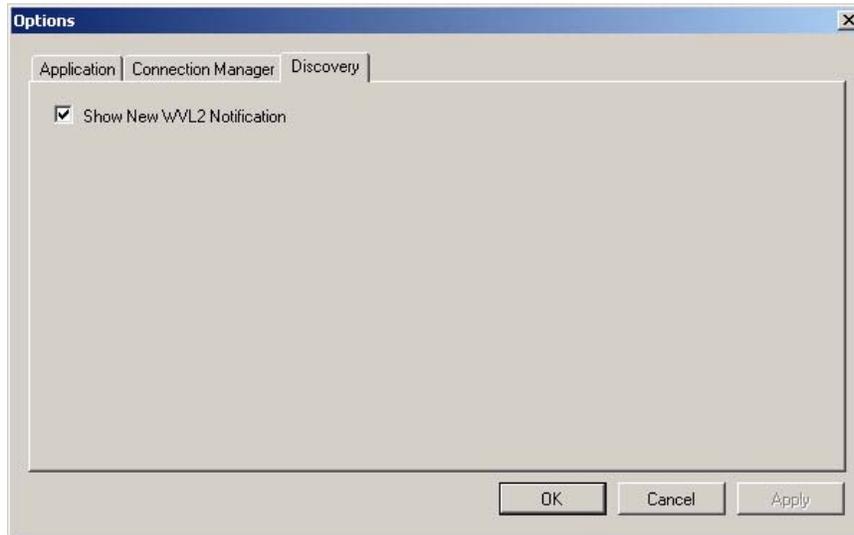


Figure 4.15 *Discovery*

- 4 Click on the **check box** to remove the check mark next to the **Show New WVL2 Notification** option.
- 5 Click **OK**.

## The Help Menu

The Help menu has one feature, About. You use the About feature to display information about the WVL2 Explorer.

To access the Help menu:

- 1 Select **Help** from the WVL2 Explorer menu bar.
- 2 Select **About**.

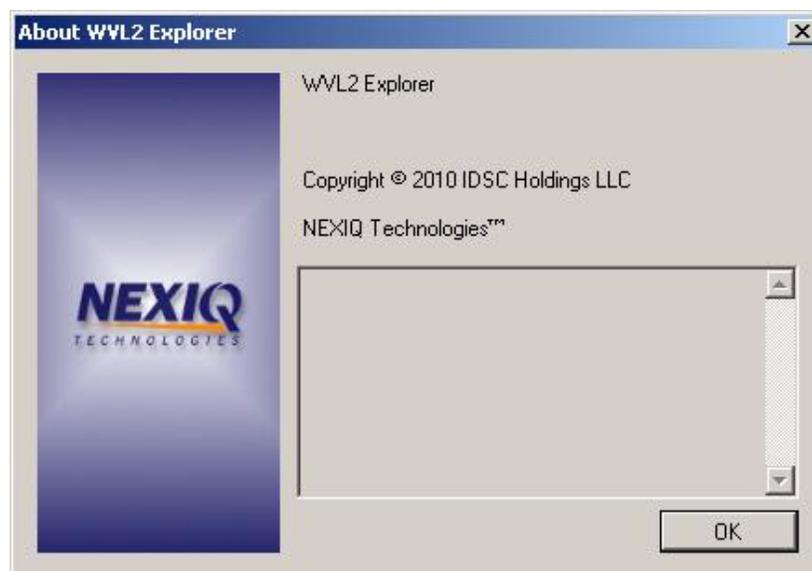


Figure 4.16 About WVL2 Explorer

The information box provides version and copyright information.

# Chapter 5

## WVL2 Troubleshooting Information



- ▼ *LED Issues, page 74*
- ▼ *Configuration Issues, page 75*
- ▼ *Wireless Communication Issues, page 76*
- ▼ *Vehicle Application Issues, page 78*

This chapter provides troubleshooting information to assist you in resolving issues that may arise when setting up and using the WVL2.

## LED Issues

The following table lists some possible causes and solutions to issues related to the light-emitting diodes (LEDs) on the WVL2:

Problem	Possible Cause	Solution
Power LED on the WVL2 does not come on.	Loose or faulty cable or adapter.	Check connections between WVL2 and the vehicle.
Fault LED on WVL2 is on.	<ul style="list-style-type: none"> <li>The WVL2 is configured for Infrastructure Mode (Networked via Access Point), but the WVL2 cannot find the Access Point.</li> </ul>	<p>Verify that the Access Point is on and within range (100 ft.) of the PC and WVL2.</p> <p>If this does not solve the problem, refer to “Wireless Communication Issues,” later in this chapter.</p>
	<ul style="list-style-type: none"> <li>The wireless card inside the WVL2 is loose or has been removed.</li> </ul>	Remove the four screws on the back of the WVL2 and ensure that the wireless PC card is securely installed.
	<ul style="list-style-type: none"> <li>There may be a hardware problem.</li> </ul>	Contact NEXIQ™ Technical Support at: 1-800-639-6774.

## Configuration Issues

The following table lists some possible causes and solutions to issues that may be experienced when configuring the WVL2 and/or PC for wireless communication:

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
Wireless LED is not illuminated	No association between the WVL2 and the PC has been made (wrong SSID)	Configure the WVL2 and the PC for the same SSID. Refer to Figure 2.16: Wireless Network Properties in Chapter 2 of this manual. You can see the SSID for the device by viewing the Configuration tab of the WVL2 Explorer (Figure 4.2).

## Wireless Communication Issues

The following table lists some possible causes and solutions to issues that may be experienced when attempting to set up the WVL2 for wireless communication:

Problem	Possible Cause	Solution
WVL2 Explorer cannot find the WVL2.	<ul style="list-style-type: none"> <li>No power received from the WVL2.</li> </ul>	Verify that the vehicle ignition is on, then check the connections between the WVL2 and the vehicle.
	<ul style="list-style-type: none"> <li>The WVL2 is out of range, or is improperly configured.</li> </ul>	Verify that the WVL2 is within 100 ft. of the wireless PC. Verify that the following settings are the same for the WVL2 and the PC: <ul style="list-style-type: none"> <li>SSID</li> <li>Communication Mode (Ad hoc)</li> <li>Encryption Settings</li> </ul>
	<ul style="list-style-type: none"> <li>Wireless card is missing from PC, or is not properly configured.</li> </ul>	Verify that the wireless network card is properly installed on the PC, the appropriate drivers are installed, and the card is properly configured. Be sure that the following match for all devices on the same network: <ul style="list-style-type: none"> <li>SSID</li> <li>Communication Mode (Ad hoc)</li> <li>Encryption Settings</li> </ul>
	<ul style="list-style-type: none"> <li>Access Point is OFF, out of range, or improperly configured (Infrastructure Mode only).</li> </ul>	Verify that the Access Point is operational and within range (100 ft.) of the PC and WVL2. Ensure that the Access Point is configured for the same SSID and Encryption Settings as the PC, and that the WVL2 is on the wireless network.

You can check the connection status of the WVL2 by referring to the WVL2 icon

located in the system tray on your desk top.

The WVL2 Explorer icon has three states, indicated by the color of the icon:

How the icon looks	What it means
	<p>Green center—A WVL2 has been detected and it is the selected WVL2</p>
	<p>White center—A WVL2 has been detected, but it has not been selected.</p> <p>In most cases, this is an indication that you have more than one WVL2, and one of the devices is not selected.</p>
	<p>Grayed out—No WVL2 has been detected.</p>

## Vehicle Application Issues

The following table lists some possible causes and solutions to issues that may be experienced when attempting to use a vehicle application with the WVL2:

Problem	Possible Causes	Solution
Vehicle Application reports an error when attempting to connect to the vehicle.	<ul style="list-style-type: none"> <li>There may be a wireless communication problem.</li> </ul>	Verify that the WVL2 Explorer can locate the WVL2. If not, refer to “Wireless Communication Issues,” earlier in this chapter.
	<ul style="list-style-type: none"> <li>Wrong device selected.</li> </ul>	Verify that the vehicle application has been properly configured for use with the WVL2.
	<ul style="list-style-type: none"> <li>Wrong Protocol selected.</li> </ul>	Some vehicle applications allow connection to a vehicle using more than one protocol. Verify that the proper protocol has been selected in the vehicle application.
	<ul style="list-style-type: none"> <li>The WVL2 Explorer is configured to launch automatically and a time-out has occurred in the diagnostic application.</li> </ul>	Some vehicle applications report an error if a connection does not occur within a specified time-out. If this happens, disable the <b>Connection Manager</b> feature in the WVL2 Explorer when using the problem application.
	<ul style="list-style-type: none"> <li>The vehicle application software is not RP1210A compliant. (TMC Recommended Practice RP1210A defines a standard Windows Application Program Interface for vehicle communications.)</li> </ul>	<p>Certain vehicle applications are hard coded to use only specific hardware and are not RP1210A-compliant. These applications are not compatible with the WVL2.</p> <p>For assistance, contact NEXIQ™ Technical Support at: 1-800-639-6774.</p>

# Appendix A

## Setting Up a Second WVL2



- ▼ *Overview, page 80*
- ▼ *Setting Up a Second WVL2, page 81*
- ▼ *Two Conditions to Watch For, page A-85*
  - ▼ *Firmware Conflict, page A-85*
  - ▼ *IP Address Conflict, page A-87*

This appendix provides you with instructions for setting up a second WVL2 for use on a single wireless network.

## Overview

If you are installing more than one WVL2 on a single network, you don't need to reinstall the WVL2 drivers or configure the wireless network card for the second WVL2. You already performed those tasks when you set up the first WVL2 (see *Chapter 2: Setting Up Wireless Communication*, earlier in this manual).

All you have to do is disconnect the first WVL2 from the vehicle. Then, connect the second WVL2. Once connected, you open the WVL2 Explorer (see *Chapter 4: The WVL2 Explorer*, earlier in this manual) and change the IP address for the second WVL2.

**NOTE:**



---

If you encounter either a Firmware Conflict or an IP Address Conflict, you must resolve these issues before proceeding (see "Two Conditions to Watch For," later in this appendix).

---

Following this change you can reconnect the first WVL2 and use both devices.

## Setting Up a Second WVL2

**NOTE:**

---

When setting up a second WVL2, each device must have a unique IP address.

---

To set up a second WVL2:

This procedure assumes that you have installed the WVL2 drivers and utilities, configured the wireless network card, and that the first WVL2 is connected to both the vehicle and to your PC.

**NOTE:**

---

For details, refer to *Chapter 2: Setting Up Wireless Communication*, earlier in this manual.

---

- 1 Disconnect the first WVL2 from the vehicle.
- 2 Connect the second WVL2 to the vehicle using the adapter cable provided (i.e., the 6- and 9-pin Deutsch Y cable).
- 3 Verify that the following **Notification** message box is displayed.

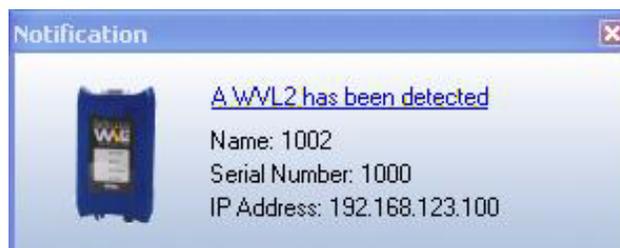


Figure A.1 Notification: A WVL2 has been detected

The WVL2 is now connected to the vehicle and detected by the software application.

- 4 Click on the **WVL2 Explorer** icon (located in the system tray on your PC's desktop).

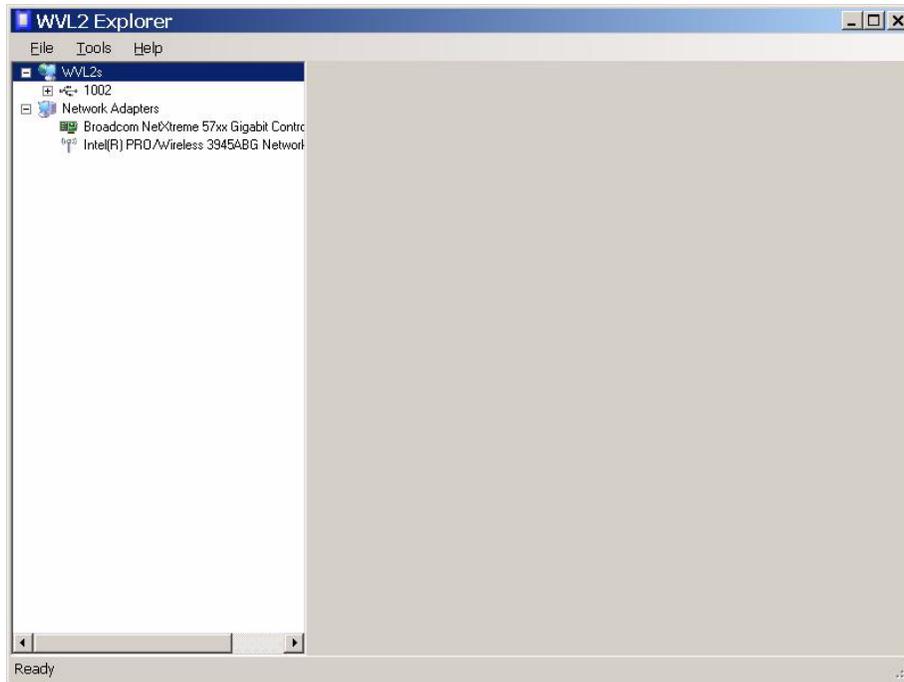


Figure A.2 WVL2 Explorer

- 5 Click on the WVL2 in the list located in the left pane of the WVL2 Explorer (e.g., **1002**).

The **Configuration** tab opens.

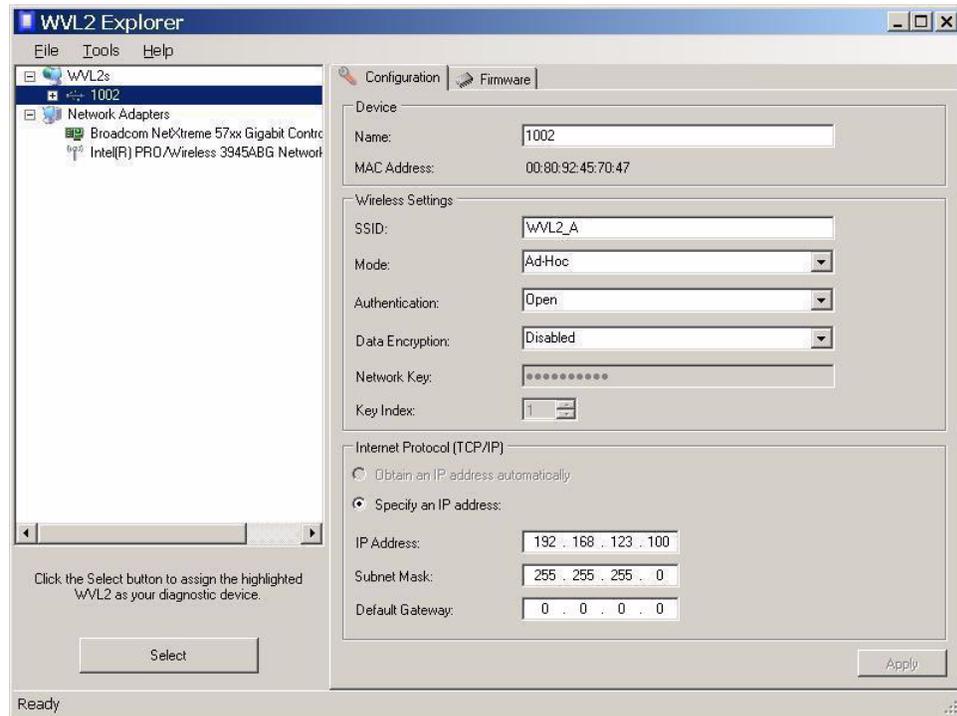


Figure A.3 Configuration Tab

**NOTE:**



Both WVL2s must have the same SSID (e.g., WVL2\_A).

- 6 Change the last three elements of the IP address in the first box in the bottom third of the display (e.g., change 100 to 116).
- 7 Click the **Select** button to select the highlighted WVL2 as your diagnostic device.

The WVL2 Explorer screen is refreshed.

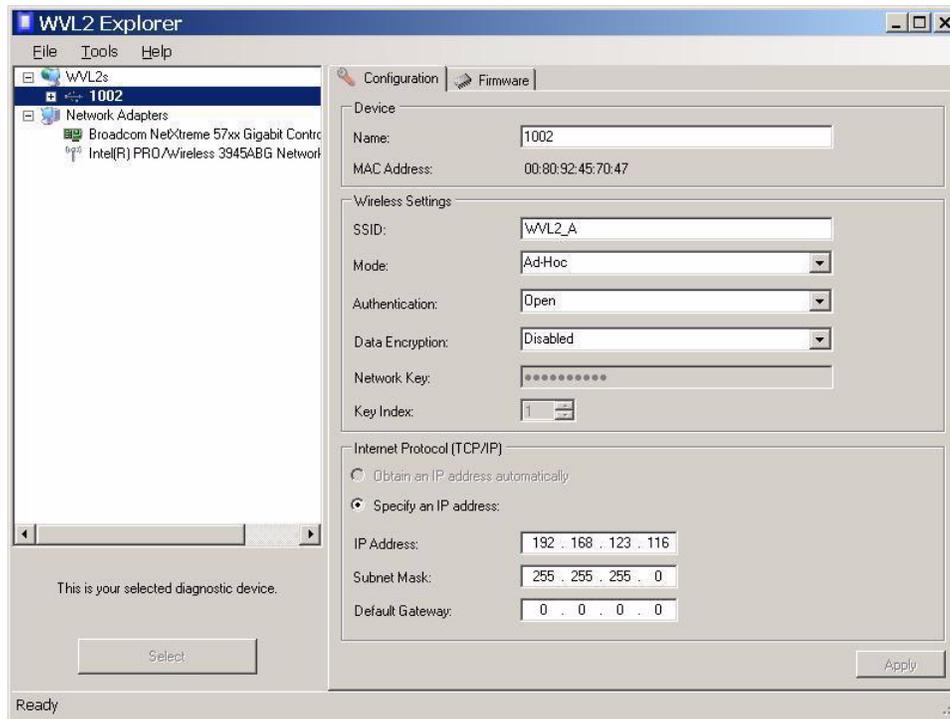


Figure A.4 Second WVL2 Selected

The second WVL2 is now selected and ready for use.

## Two Conditions to Watch For

There are two error conditions that may require your attention when installing multiple WVL2s:

- Firmware Conflict
- IP Address Conflict

Should you encounter either of these problems, do not proceed with setting up a second WVL2.

### Firmware Conflict

If you encounter a Firmware Conflict, you will notice the appearance of the **Items Requiring Your Attention** tab in the WVL2 Explorer.

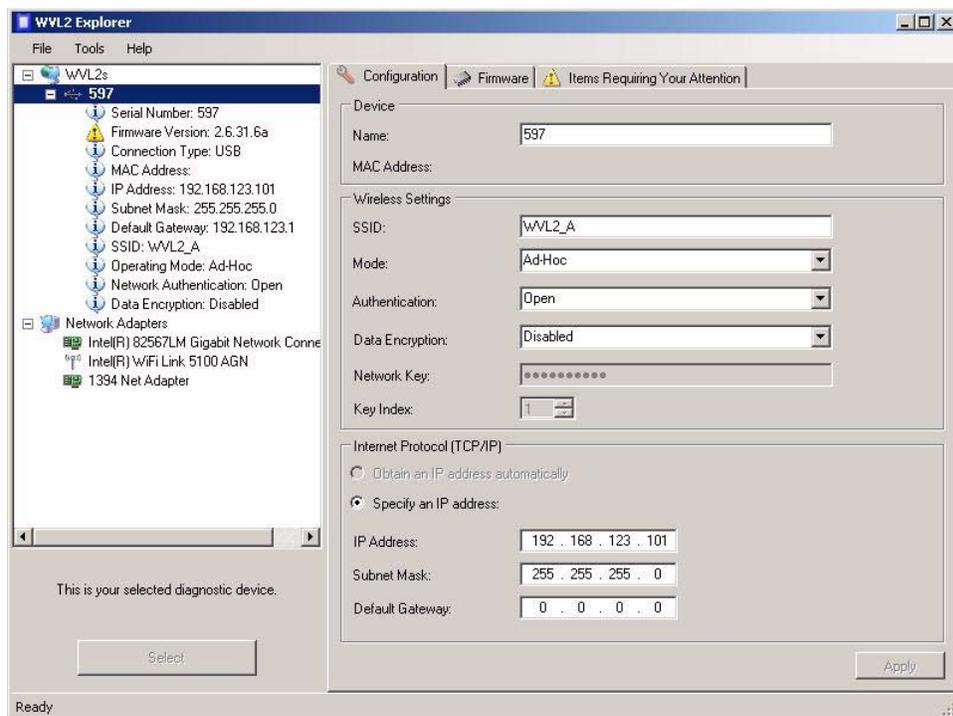


Figure A.5 *Items Requiring Your Attention Tab*



## IP Address Conflict

If you encounter an IP Address Conflict, you will notice the appearance of the **Items Requiring Your Attention** tab in the WVL2 Explorer.

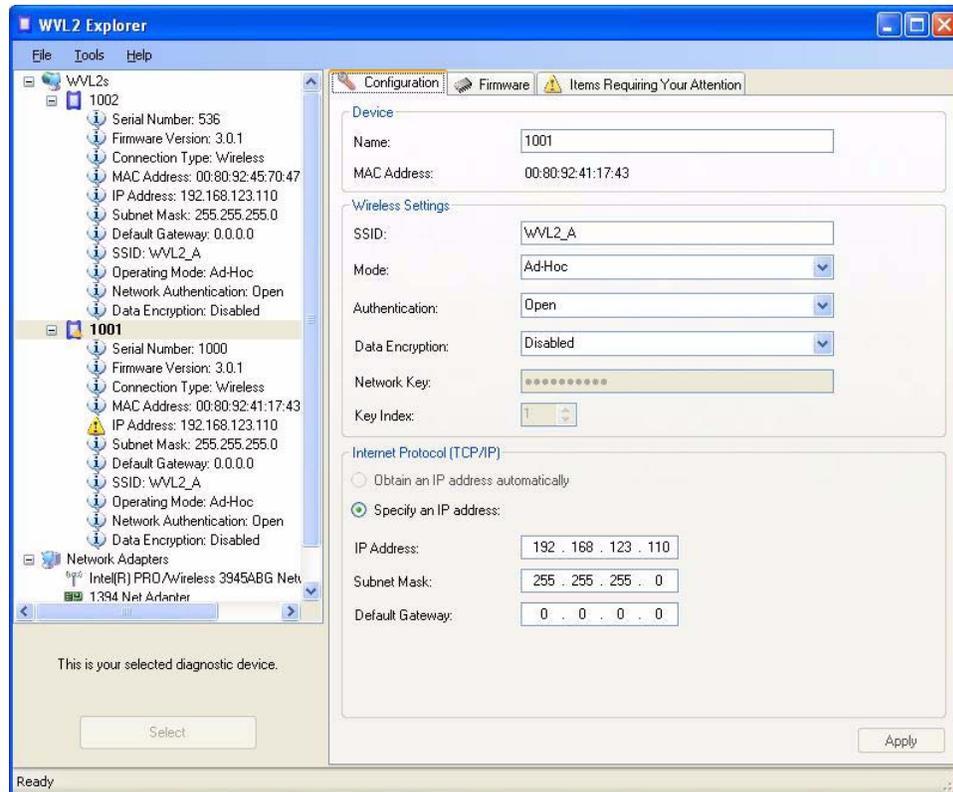


Figure A.7 Configuration Tab

Even without clicking on the tab, you can tell the nature of the item requiring attention by observing the yellow shield displayed in the information pane on the left of the WVL2 Explorer.

