

Wi232

Quick Start Guide



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05/23/05	A	GR	Preliminary Release

1. Quick Start

This section describes a procedure for quickly configuring the Wi232 through the serial port.

1.1 Required Information

1.1.1 IP Address

Your Wi232/WIUSB must have a unique IP address on your network. The systems administrator generally provides the IP address and corresponding subnet mask and gateway. The IP address must be within a valid range, unique to your network, and in the same subnet as your PC.

IP Address: _____

Subnet Mask: _____

Gateway: _____

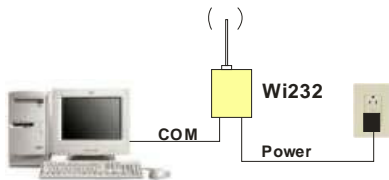
1.1.2 WLAN Settings

Before the Wi232 can communicate on an 802.11b wireless network, the WLAN settings must match the wireless network. By default, the Wi232 is set to Ad-Hoc network mode and its wireless Network Name (SSID) is LTRX_IBSS.

1.2 Installing and Configuring the Wi232

Complete the following steps to connect and initially configure the Wi232. Initial configuration is done using the Serial Mode's Setup menu.

Figure 1 - Wi232 Connection



Personal Computer (PC)

1. Connect a null modem cable to the Wi232's serial port. (Null Modem Adapter supplied)
2. Connect the other end of the serial cable to a PC's serial COM port.
3. On the PC, open a terminal emulation application (e.g. HyperTerminal). The default serial settings are: 9600 baud, 8 bits, not parity, 1 stop bit and no flow control(9600, 8, N, 1).
4. Enter Setup Mode by simultaneously connecting the power supply and holding down the lower case **x** key.
5. Upon connection , the following information displays:

```
MAC address 00204A8245A8
Software version 01.6 (040505) WPT
Press Enter for Setup Mode
```

Press **Enter** within 5 seconds to display a list of all the settings. The **Change Setup** menu will be displayed at the end of the list. If you use HyperTerminal, you can use the scroll bars to move back and forth in the display to read the entire list.

Two settings are required for the Wi232 to communicate on a wireless network:

- The Server (0) settings
- The WLAN (4) settings

Current settings are displayed in parentheses.

6. To configure the Server settings, type **0** at the **Your Choice ?** prompt and press **Enter**. Edit the following fields:

- a) IP Address: the IP address must be set to a unique value in the network. Enter each octet and press **Enter** between each section. The example shows how to enter the IP address of 172.20.206.120.

Note: To accept any default setting, press the Enter key.

```
IP Address : (000) 172(Enter).000 20(Enter).000 206(Enter).000 120(Enter)
```

- b) Set Gateway IP Address: the gateway address should be the IP address of the router connected to the same LAN segment as the Wi232 unit. If there is no router, press Enter to accept the default.

```
Set Gateway IP Address (N) ? Y
Gateway IP addr (000) .(000) .(000) .(000)_
```

- c) Netmask: a netmask defines the number of bits taken from the IP address that are assigned for the host part.

```
Netmask: Number of Bits for Host Part (0=default) (0)
```

- d) Change Telnet Configuration Password: change the Telnet configuration password to prevent unauthorized access to the Setup Menu.

```
Change telnet config password (N) ?
```

7. To configure the WLAN settings, type **4** at the **Your Choice ?** prompt and press **Enter**. Edit the following fields:

- a) Enable WLAN: enter Y to enable the wireless LAN or N to disable the wireless section and enable the Ethernet connection.

```
Enable WLAN (Y) ?
```

- b) Find Network Name: enter the Network Name (SSID). This is a case-sensitive field and must match exactly. The default is displayed in parentheses.

```
Find network name (SSID) (LTRX_IBSS) ?
```

- c) Enable Ad Hoc Network Creation: Ad Hoc network creation is enabled by default. Select Y to modify Ad Hoc parameters or select N for infrastructure network creation. This is a case-sensitive field and must match exactly. Enter the Network Name (SSID) for the Ad Hoc network, the Ad Hoc network's country, and its radio channel.

```
If not found, create Ad Hoc network (Y)
Name (SSID) (LTRX_IBSS)
Country 0=US, 1=FR, 2=JP, 3=Other (0) ?
Channel [ ] (11) [ ] ?
```

- d) Security: as an additional security measure, enable WEP (Wired Equivalent Privacy) on the Wi232.

```
Security 0=none, 1=WEP (0) ? _
```

e) Authentication: when WEP is set to enabled, select an authentication scheme.

Authentication 0=open/none, 1=shared (0) ?

f) Encryption: when WEP is set to enabled, select the encryption type from the menu.

Encryption 0=WEP64, 1=WEP128 (0) ?

g) Change Key: displays when WEP is enabled. Select Y to change the encryption key. Enter the key at the prompt in hexadecimal format (0-9 A-F).

Change Key (N) ?

h) Data Rate: the data rate is the Wi232's bandwidth.

Data rate, Only : 0=1, 1=2, 2=5.5, 3=11 Mbps or
Up to: 4=2, 5=5.5, 6=11 Mbps (6) ?

i) Power Management: enter Y to reduce the Wi232's overall power consumption. Enabling reduces the power consumption but increases the respond time for the Wi232 to respond to requests.

Enable power management (N) ? _

8. Upon completing the IP and WLAN settings configuration, type **9** at the **Your Choice ?** prompt and press **Enter** to save the setup parameters and exit the Wi232 Serial Mode setup.

Parameters stored ...

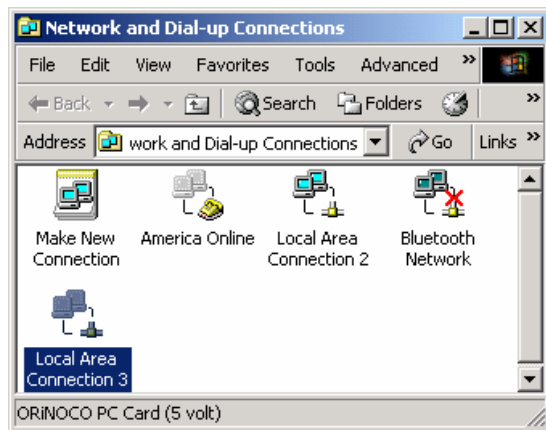
9. The Wi232 is ready for wireless connection.

1.3 Making a Wireless Connection

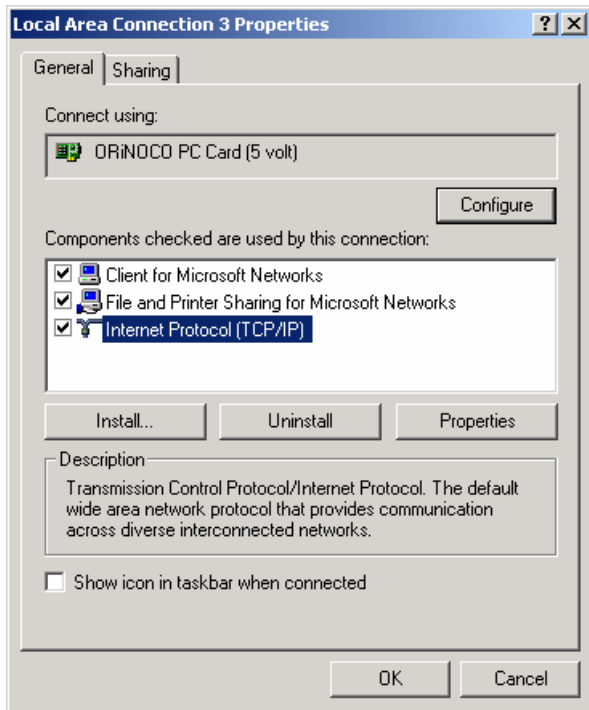
Verify the wireless card is inserted correctly in the PC or laptop. Ensure the wireless card's drivers and utilities are installed.

In the following example, an Orinoco wireless card on a Windows 2000 system is used to connect to the Wi232.

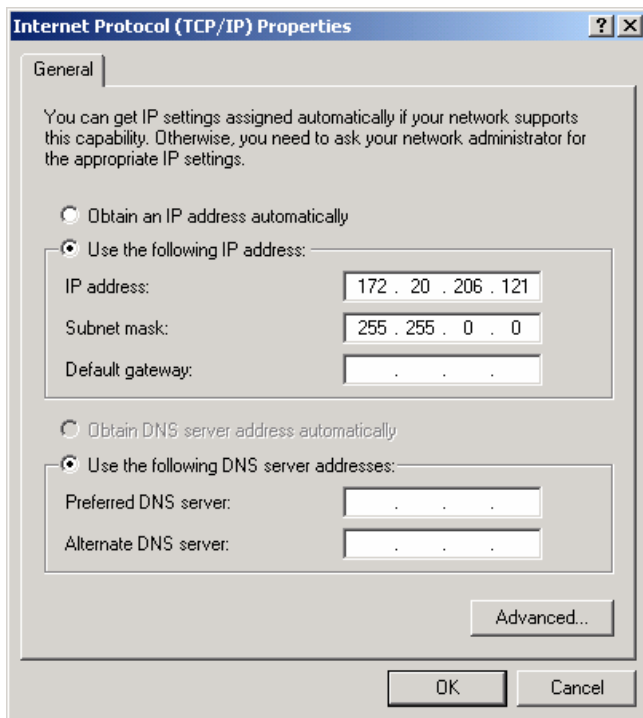
Go to **Start/Settings/Network and Dial-up Connections** and verify your wireless card is enabled. Right click on the connection and select **Properties**.



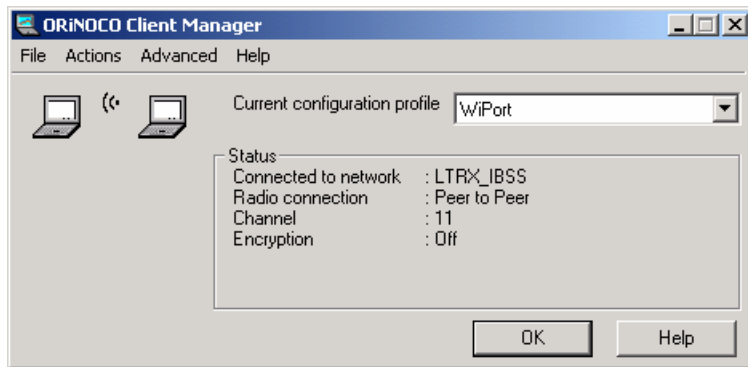
Select **Internet Protocol (TCP/IP)** from the list.



Click the **Properties** button. Assign an IP address and subnet mask. Make sure they are in the same subnet as the Wi232.



Open the client manager for the wireless card to setup a configuration profile. You can generally access the client manager icon in the tool tray.



Verify the client manager has the following settings:

- Network name set to: LTRX_IBSS
- Channel 11
- Encryption Off

Note: Connection may show a Peer-to-Peer link.

Use the Advanced features of the card to verify a good wireless connection.

At this point, you have made the necessary configuration settings to get a communication link between your PC and the Wi232.

1.4 Quick Test

This quick test is designed to demonstrate the following:

- The ability of the unit to move data from the serial port to the ethernet port
- The ability of the unit to move data from the ethernet port to the serial port

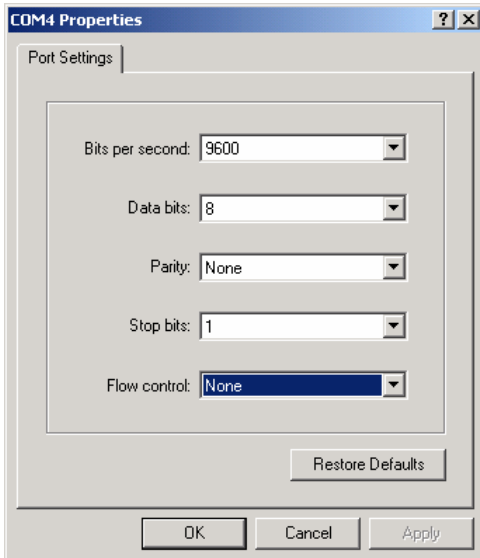
Serial Session

Start a session of HyperTerminal or other terminal emulation program. Enter a name for the new connection and click OK. Example: SERIAL

In the **Connect To** dialog box, go to the **Connect using** field and select the Com port that is connected to the Wi232 and click OK.



In the **COMx Properties** dialog box, enter 9600, 8, None, 1, None and click OK. This is the RS232 serial port terminal.

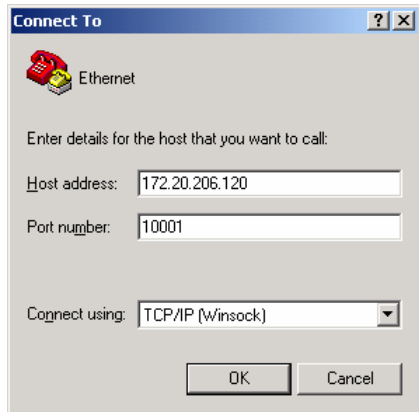


The status message at the bottom of the Hyper Terminal screen should show it is connected.

TCP/IP Session

Start another session of HyperTerminal. Enter a name for the new connection and click OK. Example: ETHERNET

In the **Connect To** dialog box, go to the **Connect using** field and select **TCP/IP (Winsock)**. Enter the IP address of the Wi232 and enter 10001 (default) for the Port number. Click OK. This is the Ethernet terminal.



The status message for the TCP/IP connection should show it is connected.

Resize the two HyperTerminal windows so you can see both on your screen. Select one of the HyperTerminal screens and begin to type characters. The typed characters should appear in the other HyperTerminal window. You may have to go back and forth between the screens for the characters to appear.

You are sending characters between the serial port and the wireless Ethernet port, exactly what the Wi232 was designed to do.