



**WIBOX 2100**



WiBox 2100 Quick Start Guide



**WIBOX 2100**

**LANTRONIX®**

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## Quick Start Guide

### WiBox 2100

#### WHAT'S IN THE BOX

In addition to the WiBox, your package contains the following items:

PART NUMBER	DESCRIPTION
500-164	DB9F-DB9F Null Modem Cable
520-006	Power Supply (domestic model only)
520-061	Power Supply (International model only)
930-029	Antenna, Omni-directional Reversed Polarity SMA 3dbi

#### DOCUMENTATION:

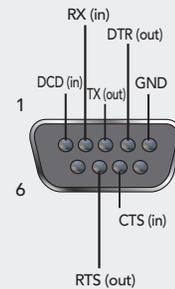
CD-ROM containing WiBox Users Guide, Com Port Redirector software and documentation.

The WiBox allows serial devices to connect and communicate over 802.11b wireless networks using IP protocol (TCP for connection-oriented stream applications and UDP for datagram applications).

This Quick Start Guide explains how to connect, configure and troubleshoot your unit using a serial connection to a terminal or a PC running terminal emulation software such as Hyperterminal. For more detailed information refer to the WiBox Users Guide on the provided CD.

#### PINOUTS

##### DB9M DTE Serial Connector



The two DB9M DTE serial ports provide default settings for RS-232C communications running at 9600 baud, 8 bits, no parity, and 1 stop bit (9600, 8, N, 1).

## GETTING STARTED

### REQUIRED SETTINGS

For the WiBox to operate on a wireless network, two critical settings are required:

1. IP address settings
2. Appropriate wireless settings

By default, the WiBox is set to Ad-Hoc network mode and its wireless Network Name (SSID) is "LTRX\_IBSS":

### DHCP

Many networks use an automatic method of assigning an IP address called DHCP. The WiBox supports DHCP. However, before it can accept an IP address from DHCP, the wireless settings must be set.

In most installations, a fixed IP address and wireless LAN settings are desired. The systems administrator generally provides these.

IP Address: \_\_\_\_\_  
Subnet Mask: \_\_\_\_\_  
Gateway: \_\_\_\_\_  
WLAN SSID: \_\_\_\_\_ note: this is case-sensitive  
WEP Enabled Y/N? \_\_\_\_\_  
WEP Key 64 bit or 128 bit: \_\_\_\_\_  
WEP Key: \_\_\_\_\_  
Entered in HEX format (0-9 A-F) xx-xx-xx-xx-xx-xx-xx-xx-xx-xx-xx

## 1 CONNECT

Initial configuration is done using Serial Mode. Complete the following steps to connect and configure the WiBox.

1. Connect one end of the supplied DB9F – DB9F null modem cable to serial port 1 on the WiBox.
2. Connect the other end of the DB9 serial cable to a terminal or 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, no 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 **x** key on the keyboard.
5. Upon connection, the following information displays:

```
*** Lantronix WiBox Device Server ***  
MAC address 00204A8178A4  
Software version 05.6b3 (040519)  
Press Enter for Setup Mode
```

Press **Enter** within 5 seconds to display the **Change Setup** menu.

## 2 CONFIGURE IP ADDRESS

Two configuration options must be set for the WiBox to communicate on a wireless network:

1. The Server (0) settings
2. The WLAN (4) settings

Current settings are displayed in parentheses.

1. To configure the Server settings, select **0** from the **Change Setup** menu and edit the following fields:

- a) IP Address: the IP address must be set to a unique value in the network. Input each octet and press Enter between each section inputted.

```
IP Address: IP Address: (0) (0) (0) (0) _
```

- b) Set Gateway IP Address: the gateway address should be the IP address of the router connected to the same LAN segment as the WiBox unit.

```
Set Gateway IP Address (N)? N
```

- c) Netmask: the netmask defines the number of bits taken from the IP address that are assigned for the host part. Enter the number of host bits. If you leave this blank and press **Enter**, the WiBox will set the subnet mask to a standard netmask for the IP address assigned in step a) above.

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

## 2 CONFIGURE IP ADDRESS CON'T.

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

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

- e) Change DHCP Device Name: change the DHCP name if desired.

```
Change DHCP device name (not set) ? (N) N
```

### 3 CONFIGURE WLAN SETTINGS

1. To configure the WLAN settings, select **4** from the **Change Setup** menu and edit the following fields:

- a) Find Network Name: enter the network name (SSID). The default is displayed in parentheses.

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

- b) 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.

```
Enable Ad Hoc network creation (Y) N ?
```

- c) Security: as an additional security measure, enable WEP on the WiBox.

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

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

```
Authentication 0=open, 1=shared (0) ?_
```

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

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

### 3 CONFIGURE WLAN SETTINGS CON'T.

- f) Change Key: displays when WEP is enabled. Select **Y** to change the encryption key. Enter the key at the prompt. **WEP key must be entered in HEX format (0-9 A-F) xx-xx-xx-xx-xx-xx-xx-xx-xx-xx-xx-xx.**

```
Change Key (N) ? _
```

- g) Data Rate: the data rate is the WiBox'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) ?
```

- h) Power Management: enter **Y** to reduce the WiBox's overall power consumption. Note: enabling power management will increase the unit's network response time.

```
Enable power management (N) ? _
```

2. Upon completing the IP and WLAN settings configuration, select menu option **9** to save and exit the WiBox Serial Mode setup.

#### 4 TEST CONNECTION

The WiBox is ready for wireless connection. To verify that the WiBox established a WLAN connection, open a browser from a PC on the same wireless network and enter the IP address of the WiBox in the URL field, <http://xxx.xxx.xxx.xxx>. The WiBox web interface should appear.

Once configured, disconnect the serial cable from the PC to the WiBox. This cable may also be used to connect various serial devices to the WiBox.

#### TROUBLESHOOTING

WIBOX LED	
LEDs	MEANING
Power LED: Green, steady on	Power is on
Wireless Link LED: Yellow, blinking	Active wireless connection, transmitting/receiving
Wireless Link LED: Yellow, off	No active connection, searching for network connection
Port 1 LED flashes (pauses and repeats) 4 times	
Port 1 LED: Green, steady on	Idle
Port 1 LED: Green, blinking	Active TCP connection
Port 2 LED: Yellow, steady on	Idle
Port 2 LED: Yellow, blinking	Active TCP connection

### CONTACT

For questions and technical support, please check our online knowledge base at [www.lantronix.com/support](http://www.lantronix.com/support).

If you need additional help call us at:

(800) 422-7044	Domestic
(949) 453-7198	International
(949) 450-7226	Fax

Our phone lines are open from 6:00 AM - 5:30 PM Pacific Time, Monday through Friday excluding holidays.

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