



**INTELLIBOX-I/O 2100**



IntelliBox-I/O 2100 Quick Start Guide



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## **INTELLIBOX-I/O 2100 QUICK START GUIDE CONTENTS**

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What's In the Box .....	2
Pinouts .....	2-3
Quick Connect .....	4
IP Addressing .....	5
Quick Setup Using DeviceInstaller GUI .....	6-10
Configuration Using Web Manager .....	10-11
LEDs .....	12
Contact .....	13

The IntelliBox-I/O 2100 industrial automation device server provides a quick and easy method to network-enable multiple industrial automation devices and equipment. Multiple serial ports, digital I/O's and a relay enable real-time access for remote configuring, programming, monitoring, and control of PLCs, motor drives, process controls, power monitoring equipment, barcode scanners, or virtually any RS232, RS422, or RS485 factory floor device.

IntelliBox-I/O 2100 incorporates EventTrak™ technology to monitor and track events and activity on the attached equipment and to respond with user-defined actions. With the automated reporting feature, the IntelliBox queries attached devices at specified times to gather information, send notifications, and take pre-emptive actions.

### WHAT'S IN THE BOX

In addition to the IntelliBox, the box contains the following items:

PART #	COMPONENT DESCRIPTION
CD-IBIO-01	CD-ROM containing the User Guide, software utilities, Quick Start Guide and tutorial
500-172-R	DB9F to 3.5 mm, 7-Position Screw Terminal Plug, RoHS
520-091-R	Power supply-worldwide, 12 VDC, 0.9A wall adapter

### PINOUTS

#### Serial Connectors

#### Serial 1 Pinouts

Pin #	Pin Name	Description
1	DSR1	In
2	CTS1	In
3	RXD1	In
4	GND	Ground
5	TXD1	Out
6	RTS1	Out
7	DTR1	Out

### PINOUTS CONTINUED

#### Serial 2 Pinouts

Pin #	Pin Name	Description
1	TX2+ / (+)	4-Wire: TX2+; Output from IntelliBox 2-Wire: (+)
2	TX2- / (-)	4-Wire: TX2-; Output from IntelliBox 2-Wire: (-)
3	GND	Ground
4	RX2+ / DNU	4-Wire: RX2+; Input to IntelliBox 2-Wire: Do not use, leave open
5	RX2- / DNU	4-Wire: RX2-; Input to IntelliBox 2-Wire: Do not use, leave open

#### Terminal Block Power Connector

The front of the IntelliBox has a terminal block screw connector for attaching to an appropriate power source, such as those used in automation and manufacturing industries. The terminal block connector supports a power range from 9 to 30 VDC or 9 to 24 VAC.

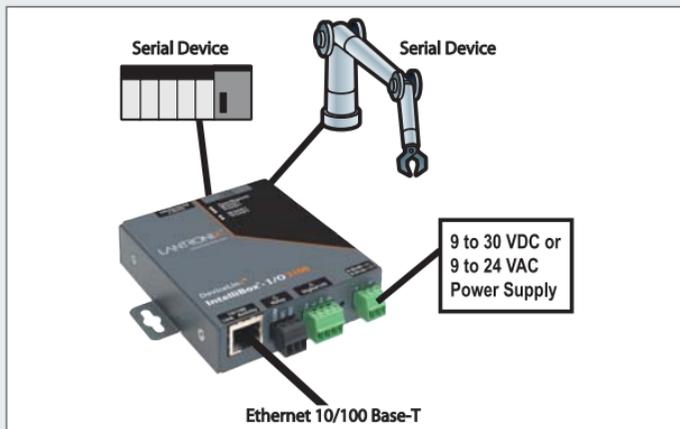
#### Power Input Port Pin Assignments

Pin #	Pin Name	Description
1	PWRIN+	Power Input, positive contact
2	PWRIN-	Power Input, negative contact
3	GND	Earth Ground

## QUICK CONNECT

Complete the following steps in order.

1. Connect a serial device to your unit.
2. Connect an Ethernet cable to the RJ45 port.
3. Supply power to your unit.
4. Supply power to the serial device.



## IP ADDRESSING

Your unit must have a unique IP address on your network. The IP address can be assigned automatically, or you can assign it manually.

### DHCP

Many networks use an automatic method of assigning an IP address called DHCP. If you are unsure whether your network uses DHCP, check with your systems administrator.

The IntelliBox looks for a DHCP server when it first powers up. You can use the DeviceInstaller graphical user interface to search the network if your unit has been assigned an IP by the DHCP server. If the IntelliBox does not acquire an IP, or you do not use DHCP, you must assign a fixed IP address using Serial 1 (Line 1) of the IntelliBox.

### FIXED IP ADDRESS

In most installations, a fixed IP address is desirable. The systems administrator generally provides the IP address.

The IP address must be within a valid range, unique to your network, and in the same subnet as your PC. You will need the following information before you set up the unit as described in this Quick Start Guide.

IP Address: \_\_\_\_\_  
Subnet Mask: \_\_\_\_\_  
Gateway: \_\_\_\_\_

The following section describes assigning an IP address using DeviceInstaller.

**Note:** For detailed instructions on assigning the IP address using Serial 1 (Line 1), please see the User Guide or the IntelliBox Video Tutorial on the CD or the Lantronix web site.

## QUICK SETUP USING DEVICEINSTALLER GUI

### Step 1: Install DeviceInstaller

To use the DeviceInstaller utility, first install it from the product CD.

1. Insert the product CD into your CD-ROM drive.
2. If the CD does not launch automatically:
  - a) Click the **Start** button on the Task Bar and select **Run**.
  - b) Enter your CD drive letter, colon, backslash, **Launch.exe** (e.g., **D:\Launch.exe**).
3. Click the **DeviceInstaller** button.
4. Respond to the installation wizard prompts.  
(When prompted to select an installation type, select **Typical**.)

**Note:** For more information about DeviceInstaller, see the DeviceInstaller online Help.

### Step 2: Configure Network Settings

To assign an IP address manually:

1. Click **Start** → **Programs** → **Lantronix** → **DeviceInstaller** → **DeviceInstaller**.  
If your PC has more than one network adapter, a message displays. Select an adapter and click **OK**.

## USING DEVICEINSTALLER GUI CONTINUED...

**Note:** If the unit already has an IP address (e.g., DHCP has assigned an IP address), click the **Search**  icon and select the unit from the list of Lantronix device servers on the local network.

2. Click the **Assign IP** icon .
3. If prompted, enter the hardware address (on the product label) and click **Next**.

### Device Identification

Enter the hardware address of the device. This is typically printed on the back panel of the device in the form "12-34-56-78-9A-BC".

00-20-4a-41-13-D9

4. Select **Assign a specific IP** address and click **Next**.
5. Enter the **IP address**. The **Subnet mask** displays automatically based on the IP address; if desired, you may change it. On a local network, you can leave the **Default gateway** blank (all zeros). Click **Next**.

## USING DEVICEINSTALLER GUI CONTINUED...

### IP Settings

Please fill in the IP address, subnet, and gateway to assign the device. The subnet will be filled in automatically as you type, but please verify it for accuracy. Incorrect values in any of the below fields can make it impossible for your device to communicate, and can cause network disruption.

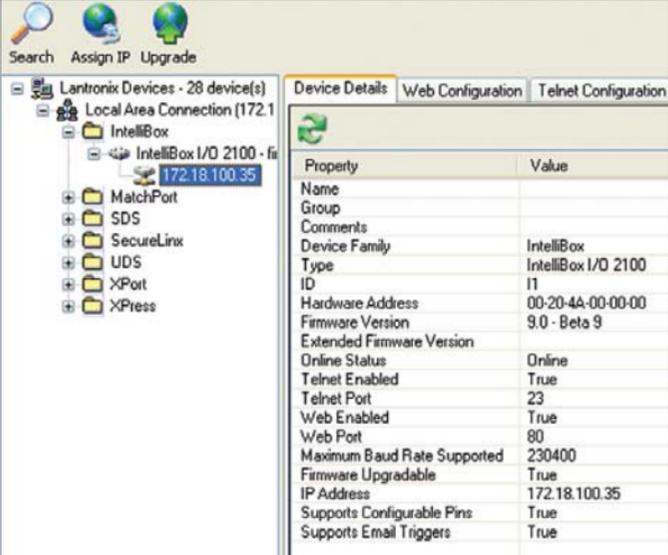
IP address:	<input type="text" value="172.18.27.125"/>
Subnet mask:	<input type="text" value="255.255.0.0"/>
Default gateway	<input type="text" value="172.19.0.11"/>

- Click the **Assign** button and wait several seconds until a confirmation message displays. Click **Finish**.
- Click the **Close** button to close the dialog box and return to the main window.

## USING DEVICEINSTALLER GUI CONTINUED...

### Step 3: Add the Unit to the Device List

Now add the unit to the list of similar Lantronix devices on the network so that you can manage and configure it. To perform this step, click the **Search** icon . DeviceInstaller locates the unit and adds it to the list. To view the current configuration, double-click the unit in the list.



The screenshot shows the DeviceInstaller GUI. On the left, a tree view displays 'Lantronix Devices - 28 device(s)' under 'Local Area Connection (172.1...)', with 'IntelliBox I/O 2100 - fi' selected. On the right, the 'Device Details' tab is active, showing a table of properties and values for the selected device.

Property	Value
Name	
Group	
Comments	
Device Family	IntelliBox
Type	IntelliBox I/O 2100
ID	I1
Hardware Address	00-20-4A-00-00-00
Firmware Version	9.0 - Beta 9
Extended Firmware Version	
Online Status	Online
Telnet Enabled	True
Telnet Port	23
Web Enabled	True
Web Port	80
Maximum Baud Rate Supported	230400
Firmware Upgradable	True
IP Address	172.18.100.35
Supports Configurable Pins	True
Supports Email Triggers	True

## USING DEVICEINSTALLER GUI CONTINUED

### Step 4: Complete the Configuration

Once the unit is in the device list, you can complete the configuration:

- To use a web interface (Web Manager), double-click the unit in the list and click the **Web Configuration** tab. See *Configuration Using Web Manager* below.
- To use Setup Mode (a command line interface), double-click the unit in the list and click the **Telnet Configuration** tab.

**Note:** Please see your product's User Guide for detailed instructions on configuration.

## CONFIGURATION USING WEB MANAGER

In this Quick Start Guide, we briefly describe how to configure the IntelliBox using Web Manager, Lantronix's browser-based configuration tool. For detailed information on Web Manager configuration and on other methods, please see User Guide for your product.

1. Perform one of the following steps:
  - Using DeviceInstaller, select the unit, select the **Web Configuration** tab, and click **Go**.
  - Open a web browser and enter the IP address of the IntelliBox to open Web Manager.
2. Enter your User Name (default is **admin**) and Password (default is **PASS**). The IntelliBox Web Manager window displays.

## CONFIGURATION CONTINUED

The screenshot shows the Lantronix IntelliBox-I/O Web Manager interface. The top header includes the Lantronix logo and the text "IntelliBox-I/O Powered by Evolution OS". On the left is a navigation menu with various system settings tabs. The main content area displays the "Device Status" page, which is divided into several sections: Product Information, Network Settings, Line Settings, and Tunneling. The Product Information section lists details like Product Type, Firmware Version, Build Date, Serial Number, and Uptime. Network Settings includes Ethernet, MAC Address, Host, IP Address, Default Gateway, Domain, Primary DNS, and Secondary DNS. Line Settings shows details for Line 1 and Line 2, including RS232 and RS485 configurations. The Tunneling section shows the status of Tunnel 1 and Tunnel 2, including Connect Mode and Accept Mode.

Device Status		
<b>Product Information</b>		
Product Type:	Lantronix IntelliBox I/O 2100	
Firmware Version:	9.9.9.979	
Build Date:	Feb 13 2007 (13:07:00)	
Serial Number:		
Uptime:	0 days 03:46:16	
Permanent Config:	Saved	
<b>Network Settings</b>		
Ethernet:	Auto 10/100 Mbps Auto Half/Full (100 Mbps Full)	
MAC Address:	00:20:4a:00:00:00	
Host:		
IP Address:	172.18.100.35 / 255.255.0.0 (DHCP)	
Default Gateway:	172.18.0.11 (DHCP)	
Domain:	support.int.lantronix.com (DHCP)	
Primary DNS:	172.18.0.11 (DHCP)	
Secondary DNS:	172.16.1.26 (DHCP)	
<b>Line Settings</b>		
Line 1:	RS232, 9600, N, 8, 1, None	
Line 2:	RS485 Half, 9600, N, 8, 1, None	
<b>Tunneling</b>		
	Connect Mode	Accept Mode
Tunnel 1:	Disabled	Inhibited
Tunnel 2:	Disabled	Waiting

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2. Use the menu to navigate to sub pages where you can configure the IntelliBox.

## LEDS

The IntelliBox has the following LEDs:

### Ethernet Port LEDs

LEDS	DESCRIPTIONS
Left – Green ON	<b>Link Established – 100BASE-T</b>
Left – Amber ON	<b>Link Established – 10BASE-T</b>
Right – Green ON	<b>Full Duplex (Blinking = Activity)</b>
Right –Amber ON	<b>Half Duplex (Blinking = Activity)</b>

### LEDs On Top Cover

LEDS	DESCRIPTIONS
Power/Diagnostic - Blue	<b>Power Indicator and Diagnostic</b>
RX Serial 1 - Green	<b>Serial 1 Received Data Activity</b>
TX Serial 1 - Amber	<b>Serial 1 Transmitted Data Activity</b>
RX Serial 2 - Green	<b>Serial 2 Received Data Activity</b>
TX Serial 2 - Amber	<b>Serial 2 Transmitted Data Activity</b>

## CONTACT

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

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