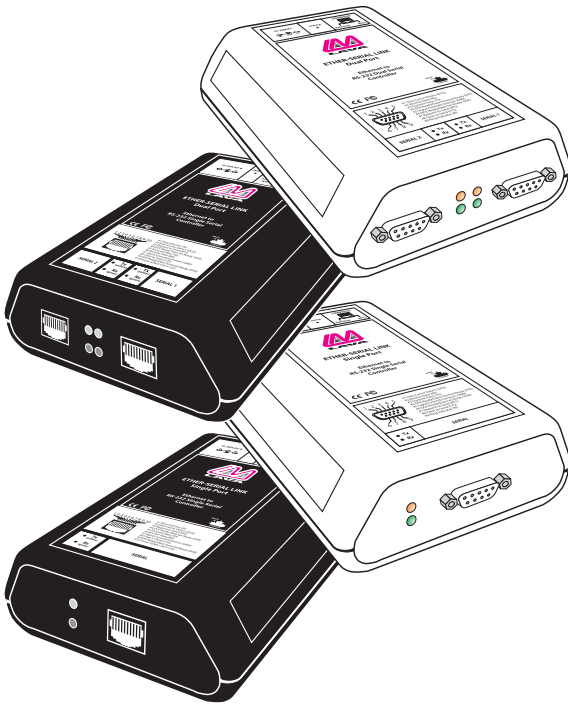# Lava Ether-Serial Link
One/Two Port
Quick Installation Guide

1 ## Getting Started

Congratulations on your purchase of a Lava Ether-Serial Link. Ether-Serial Links connect serial devices to Ethernet networks. Any serial device—POS equipment, factory machinery, monitoring hardware, or security devices, for example—can send its information to the Ether-Serial Link. The Ether-Serial Link places the serial data in a TCP/IP wrapper and sends it out its Ethernet port. Data moving the other direction, from the Ethernet side of the Ether-Serial Link to the serial device, undergoes the same process in reverse. Lava Ether-Serial Links use industry-standard hardware interfaces and are supported in Windows® 2000, Windows® XP, Linux, and QNX.

With a Lava Ether-Serial Link, you can:

- Network serial devices
- Make devices available to multiple users
- Manage multiple serial devices from a single PC
- Eliminate long dedicated serial runs
- Stop using costly PCs as dedicated serial port servers
- Remotely access and control serial devices
- Eliminate long-distance phone-modem charges

Included with your package, you should have the following:

- Lava Ether-Serial Link
- Power supply
- Installation diskette
- Quick Installation Guide
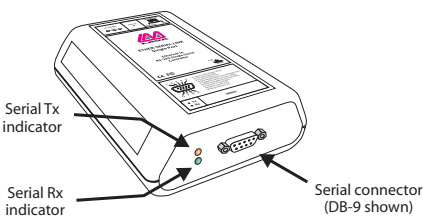
Hardware Setup

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1. Connect the power supply to the Ether-Serial Link and to AC power.

2. The power (red) LED will light to indicate that the unit is receiving power.

3. Connect a network cable to the RJ-45 jack of the Ether-Serial Link. The other end of the network cable can be attached to either:

   • an Ethernet hub or switch, using a length of standard Ethernet network cable

   • a host PC directly, using an Ethernet cross-over cable.

Network status is indicated by two LEDs on the RJ-45 connector. The left (yellow) LED indicates network activity. It is on by default, turning off when network activity occurs at the Ether-Serial Link. The right (green) LED indicates a network link. It is off by default, but lights when a network link exists.

Network Activity and Link indicators

Network connector (RJ-45)
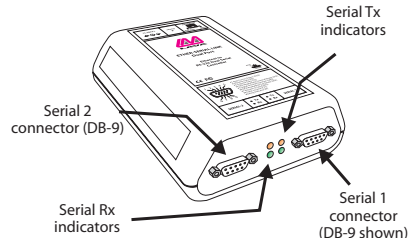
Power indicator

Power connector
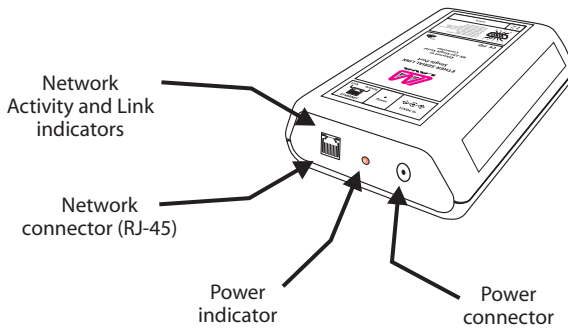
4. Connect a serial device to the Ether-Serial Link.

Serial port activity is indicated by two status LEDs per port. The upper (yellow) LED lights when the serial port is transmitting data. The lower (green) LED lights when the serial port is receiving data.

Serial Tx indicator

Serial Rx indicator

Serial connector (DB-9 shown)

Single Port

Serial Tx indicators

Serial 2 connector (DB-9)

Serial Rx indicators

Serial 1 connector (DB-9 shown)

**Dual Port**

3 Software Installation and Configuration

Software installation and configuration consists of the following:

A. Running the Ether Link setup software
B. Configuring network settings
C. Activating and deactivating Ether Link ports
D. Optional advanced port configuration

A. Running the Ether Link setup software

The installation diskette has files to install Ether Link drivers on your PC and to detect Ether Links on your network. To run the installation software, insert the installation diskette and run "Setup.exe". The Setup Wizard will ask you to supply basic installation information.

The Setup Wizard will finish by opening the Lava *Ether Link Manager*. By default the *Ether Link Manager* will display Lava Ether Link devices that it has detected on your network.
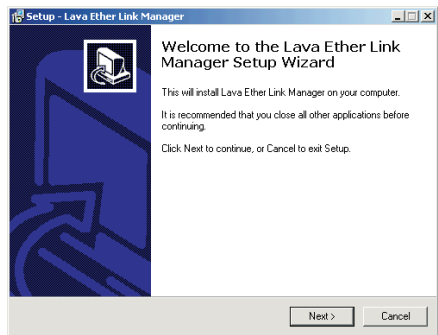
B. Configuring network settings

The Lava *Ether Link Manager* displays Ether Link information in a Windows Explorer-like interface. Any Lava Ether Links that are discovered on your network are displayed in the "Ether-Links Near Me" branch of the "My Ether Link Network" tree.

Ether Link devices installed on your network will need unique IP addresses. These can be set by using either the *Ether Link Manager,* a web browser, or a Telnet client.

The factory default network settings for the Ether-Serial Link are:

IP address:	192.168.0.35
Subnet mask:	255.255.255.0
Gateway address:	0.0.0.0
Name:	[empty]
Workgroup:	[empty]
DHCP detection:	disabled

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Configuring Ether Link network settings using the Ether Link Manager

To set an Ether Link's network settings using the *Ether Link Manager*, right-click on it in the Ether Link tree and select "Properties". If the Ether Link is accessible on the network, a dialog will open that allows you to give it a new name, IP address, subnet mask, and gateway address. If your network assigns IP addresses using a DHCP server, DHCP detection can also be enabled.
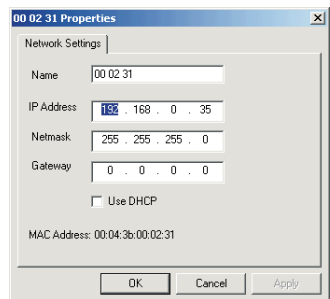
Changes made using the *Ether Link Manager* will be updated to both the local PC and to the Ether Link.

NOTE: Changing the network settings of an Ether Link device may make that device unavailable to other stations that have activated a connection to that device using older network settings.

NOTE: The *Ether Link Manager* is the recommended method of changing all Ether-Serial Link settings.

Configuring Ether Link network settings using a web browser

To set an Ether Link's network settings using a web browser, open the browser and enter the IP address of the Ether Link into the browser's location bar. The embedded web server running on the Ether Link will display the opening screen of the Ether-Serial Link configuration menu.

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Choose the setting you wish to change. In the configuration screen that appears, and enter the network settings you wish for that Ether Link. Once the new values are entered and accepted, the Ether-Serial Link will reboot to implement the new network settings.

Changes made using a web browser will be updated to the Ether Link but not to the local PC.

NOTE: DHCP settings cannot be changed in the web browser interface.

NOTE: Changing the network settings of an Ether Link device may make that device unavailable to other stations that have activated a connection to that device using older network settings.

### *Configuring Ether Link network settings using a Telnet client*

To set an Ether Link's network settings using a Telnet client, open a Telnet session to the IP address of the link whose settings you want to change. Details on Telnet connection can be found in the "telnet.txt" file on the Installation diskette.
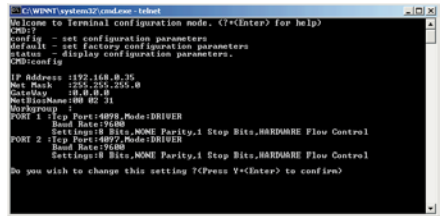
C. Activating & Deactivating Ether Link ports

Ether Link ports that have been detected as existing on the network are not initially activated for your PC. To access an Ether-Serial port it must be activated. You may wish to activate on a given computer some, all, or none of the Ether Link ports that are available on the network. To activate a particular port, right click on the port where it is displayed in the right panel of the *Ether Link Manager*, and select "Activate". To activate all ports on a particular Ether-Serial Link device, right click on that device in the left panel of the *Manager* and select "Activate All".
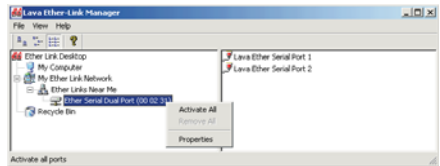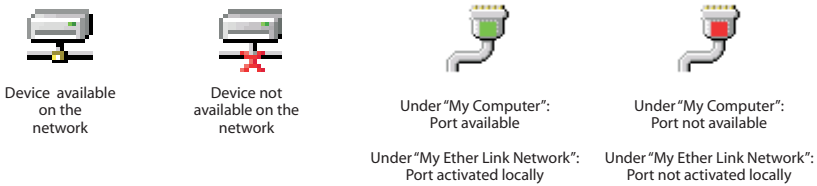
Before activation, Ether Link ports only appear under the "My Ether Link Network" branch of the Ether Link Desktop. Once they have been activated for a local system,

they will also appear under "My Computer" in the *Ether Link Manager*.
To deactivate ports individually, right-click on the port where it is displayed in the right panel of the *Ether Link Manager*, and select "Deactivate". To deactivate all ports on a particular Ether-Serial Link device, right click on that device in the left panel of the *Manager* and select "Remove All".

Icons depict the states of Ether Link devices and ports as follows:

Device available
on the
network

Device not
available on the
network

Under "My Computer":
Port available

Under "My Ether Link Network":
Port activated locally

Under "My Computer":
Port not available

Under "My Ether Link Network":
Port not activated locally

Activated ports appear in Windows' Device Manager under the "Ports (COM & LPT)" branch as "Lava Virtual Port" ports, with their associated COM numbers.

Activating and deactivating Ether Link ports on one computer does not affect the operation of those ports on other systems.

D. Optional advanced port configuration

Ether-Link ports that have been activated on your PC can generally be used immediately without further configuration. Additional configuration options can however be accessed through the *Lava Ether Link Manager*. These configuration options are discussed in detail in the "advanced.txt" readme file on the Installation diskette.

Advanced settings include port binding options that can associate a port with a specified IP address, NetBios name, or MAC address; port modes for raw connection or RFC 2217 communications; and a COM port number reassignment feature.
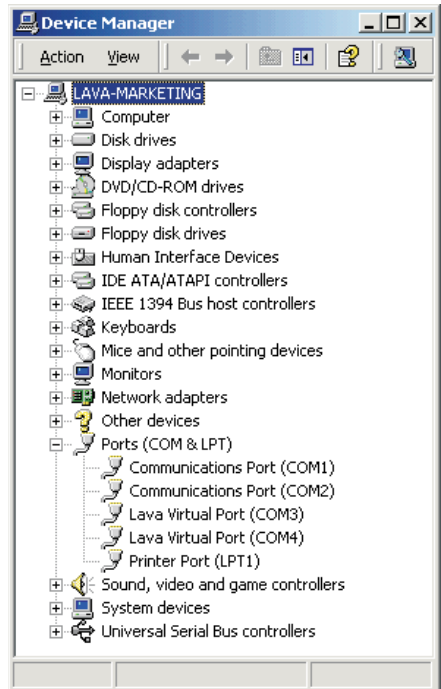
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