LAVA PayLink-IP/232 Quick Installation Guide

Rev. C00

① Getting Started

Congratulations on your purchase of a LAVA PayLink-IP/232. PayLink-IP devicess securely connect payment terminals to payment processors over an Ethernet/TCP/IP connection. Payment terminals that can transmit transaction information over a COM (RS-232) port can send information to the LAVA PayLink-IP/232. The LAVA PayLink-IP/232 establishes an SSL-secured connection to the payment processor, 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 LAVA PayLink-IP/232 to the payment terminal, undergoes the same process in reverse.

With a LAVA PayLink-IP/232, you can:

- Securely network payment terminals
- Stop using dial-up modems
- Eliminate long-distance phone-modem charges

Included with your package, you should have the following:

- LAVA PayLink-IP/232
- Power supply
- Installation diskette
- Quick Installation Guide

Before Proceeding: The PayLink-IP is factory preset with an IP address of 192.168.0.35. If this IP address conflicts with a device already installed on the network, follow the procedure described in the "Configuring network settings" section of this manual to set the IP address to a usable address.

Hardware Setup

1. Connect the power supply to the LAVA PayLink-IP/232 and to AC power. The power (red) LED will light to indicate that the unit is receiving power.

2. Connect an Ethernet cross-over cable to the Ethernet RJ-45 jack of the LAVA PayLink-IP/232. Attach the other end of the crossover network cable to a host PC directly.

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 PayLink-IP. 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
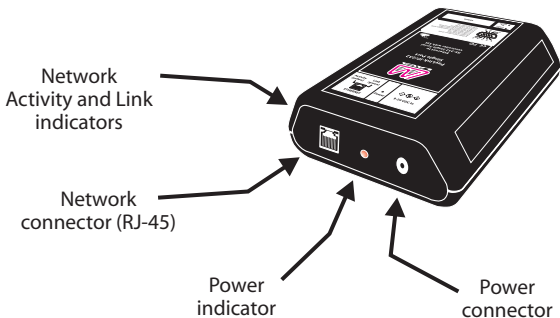
3. Open a web browser to the IP address of the PayLink-IP and configure the device as described in the "Configuration" section of this manual.

4. After configuring the LAVA PayLink-IP/232, attach it to your network and connect a payment terminal to its serial port.

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

Serial Tx indicator

Serial Rx indicator

Serial connector
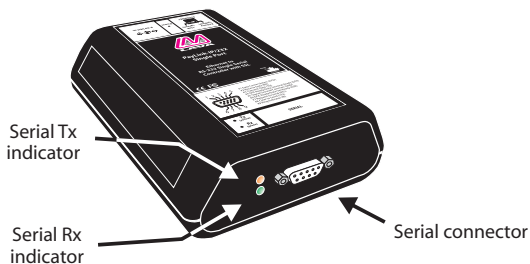
Single Port PayLink-IP/232

④ <u>**Configuration**</u>

Configuration consists of the following:

A. Configuring network settings
B. Port configuration
C. Host configuration
D. Terminal Side Data and Protocol configuration
E. Password selection
F. Upgrading software

<u>A. Configuring network settings</u>

PayLink-IP devices installed on your network will need unique IP addresses. These are set by using a web browser.

The factory default network settings for the PayLink-IP 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

Configuring PayLink-IP network settings

To set a PayLink-IP's network settings, open a web browser and enter the IP address of the PayLink-IP into the browser's location bar. The embedded web server running on the PayLink-IP will display the opening screen of the PayLink-IP.

Opening screen

Click "Configure" if no password has been set, or enter the password for the PayLink you are configuring, and then click "Configure." The Configuration menu will open.

Configuration Menu

If not using a DHCP server to assign network addresses, choose the "Manually configure" option for Network Settings. In the configuration screen that appears, enter the network settings you wish for that PayLink-IP. Once the new values are entered and accepted, the PayLink-IP will reboot to implement the new network settings. Advanced network settings can also be accessed from this page by clicking on the "Advanced" link.

Network Settings

NOTE: Changing the network settings of a PayLink-IP device that is installed on a network may make that device unavailable to other stations that have activated a connection to that device using older network settings.

The following network parameters can be configured for the LAVA PayLink-IP/232:

Device name
Use this field to supply a "friendly" name for the LAVA PayLink-IP/232 device being configured. The friendly name is optional, and can be chosen to provide a conveniently-remembered name for the unit.

IP address
The IP address for the LAVA PayLink-IP/232 will identify the device on the LAN on which it is located. Any conventional IP address can be used. The LAVA PayLink-IP/232 ships with its default IP address as 192.168.0.35; ensure that this IP address is available on the LAN onto which the LAVA PayLink-IP/232 is being installed.

Subnet mask
A subnet mask can be configured for the LAVA PayLink-IP/232 in this dialog box; by default the LAVA PayLink-IP/232 has a subnet mask of 255.255.255.0.

Default gateway
Configure the IP address of the default gateway that the LAVA PayLink-IP/232 will use when communicating with devices outside its network segment. The default gateway is configurable as a 12 digit numeric address.

HTTP port
By default, the LAVA PayLink-IP/232 communicates on port number 80. A measure of increased security may be obtained by changing this port number to a non-standard TCP port for HTTP communications.

DHCP enabled
When installing the LAVA PayLink-IP/232 onto a network where IP addresses are assigned by DHCP servers, please ensure that the

"DHCP enabled" checkbox has been set. The LAVA PayLink-IP/232 will then act as a DHCP client and obtain its IP address from the DHCP server on its LAN that first leases an IP address to the LAVA PayLink-IP/232.

Assigned local TCP port
Use this dialog box to change the TCP port number assigned to the serial port of the LAVA PayLink-IP/232. By default the LAVA PayLink-IP/232 assigns TCP port 2300 to its serial port; if another device on the network is already using this TCP port number, reassign the serial port to another TCP address.

After making changes to the network settings, four options exist:

Submit changes and reboot device
This option will register the changes you have entered into the dialog box and reboot the LAVA PayLink-IP/232, implementing the changes on reboot.

Restore factory defaults and reboot device
This option will restore factory defaults and reboot the LAVA PayLink-IP/232, implementing the changes on reboot.

Exit without changes
This option will discard changes entered into the dialog box and return you to the "Administrator Menu" screen.

Reboot device
This option will reboot the device with the settings currently implemented, and discard changes entered into the dialog box and not submitted.

B. Port configuration

The PayLink-IP/232 serial port can be configured through a web browser. The settings for the LAVA PayLink-IP/232's serial port should match the settings of the serial port on the payment terminal.
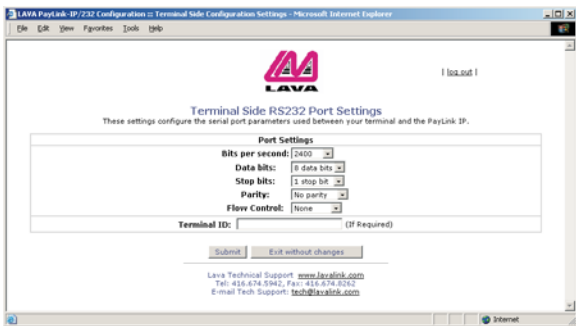
Serial Port Settings

The following port parameters can be configured for the LAVA PayLink-IP/232:

Baud rate
This parameter can be set from 110 to 115200 bps. By default this parameter is set to 19200 bps.

Data bits
This parameter can be set from 5 to 8. By default this parameter is set to 8 bits.

Parity
This parameter can be set even, odd, none, mark, or space. By default this parameter is set to none.

Stop bits
This parameter can be set 1, 1.5, or 2. By default this parameter is set to 1.

Flow control
This parameter can be set XON/XOFF, hardware, or none. By default this parameter is set to none.

Terminal ID
This parameter gives an identifying name, if needed, that a remote server will identify with the serial port.

C. Host configuration

The PayLink-IP/232 Payment Host configuration screen has fields for entering IP address/DNS name and TCP port information for up to four payment processing hosts. Each host can also be configured for the PayLink to use a fallback address

By default, these fields are empty. Users will need to supply the addressing information suitable to their specific payment processing hosts on this screen and on the Terminal Side Data and Protocol Configuration screens that can be reached from this screen.

Host Settings

D. Terminal Side Data and Protocol Configuration

The PayLink-IP/232 permits each host connection to be configured with specific data format and protocol configurations, using the screens shown below. These parameters are described in detail in the PDF manual supplied with the PayLink software.

Terminal Side Data and Format Configuration

Protocol Configuration

By default, the LAVA PayLink-IP/232's connection to the payment processor is set up using an SSL Ver. 3.0 link. Disabling this setting will send data over an unsecured TCP/IP link.

E. Password selection

The PayLink-IP/232 password configuration screen can be accessed through a web browser. The password permits securing the PayLink-IP against unauthorized configuration of network settings, port settings, processor gateway settings, and advanced configuration features. The password supplied here is required to access the web browser configuration screens.

By default the PayLink-IP is shipped with no password set. LAVA recommends applying a password immediately to any PayLink-IP devices being deployed. As an additional security measure, when three attempts to supply a password fail, the PayLink will "lock" and will require the use of a second "Unlock Password" which is also configured on this screen.

Password Selection

F. Upgrading Software

New versions of PayLink-IP software and firmware may be found at www.lavalink.com.

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