Lava Link-650

Installation Manual

LAVA

BEFORE BEGINNING INSTALLATION

Determine what types of add-in boards are currently in your PC.
Most devices (ports, network cards, sound cards, controllers)
use a particular IRQ (numbering 2-15). The Lava Link-650 requires
an unused IRQ, so determining which are in use is important.

Note: Many diagnostic programs are do not accurately report
IRQ usage. DO NOT rely on MSD (Win3.1) or Win95 to report
IRQ conflicts accurately.

The following listing of devices shows common IRQ allocation
Note that this list is not universal - your PC setup may be different:

IRQ 2/9	Network or Sound Card
3	Com 2
4	Com 1
5	LPT 2 or Sound Card
10	Network Card
11	SCSI Controller
12	usually free
15	Secondary IDE channel

Note: A Com Port which is not connected to any external devices continues to be seen as "in use" by the PC hardware. If you are disabling an existing Com Port or other device, to make room for the Link-650, be sure to physically remove the port/device, or disable it with the proper jumper. Disabling a Com Port through software, or merely disconnecting its cable,will not necessarily disable the port, and may cause a hidden conflict.

PCI Motherboard users take note:

Many PCI motherboards automatically allocate IRQ's 10-15 to the PCI bus. If you wish to use one of these IRQ's for the Link-650, you must release one of them to the ISA bus through the PCI Bus Configuration Menu - accessed at boot-up.

If you are unsure of your IRQ settings, or are unable to determine which IRQ's are unused in your PC, you may wish to download the "PortInfo" diagnostic utility from: http://www.comminfo.com. Although Lava does not warranty this software, we have found it to be a reliable tool for determining IRQ conflicts.
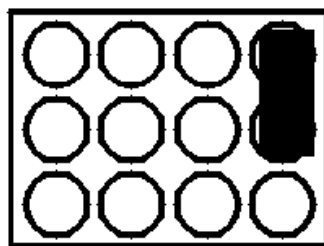
HARDWARE INSTALLATION

1.Determine the number of serial ports installed in your system. Each port will have a unique "COM" designation number. Configure the Link-650 for the next consecutive unused COM address & make a note of your selection. You will need it when installing the Link-650 software.

COM 3 ——
COM 4 ——
—— COM 1
—— COM 2

16C650

Configuration Jumpers
for IRQ Settings

Configuration Jumpers
for COM Settings
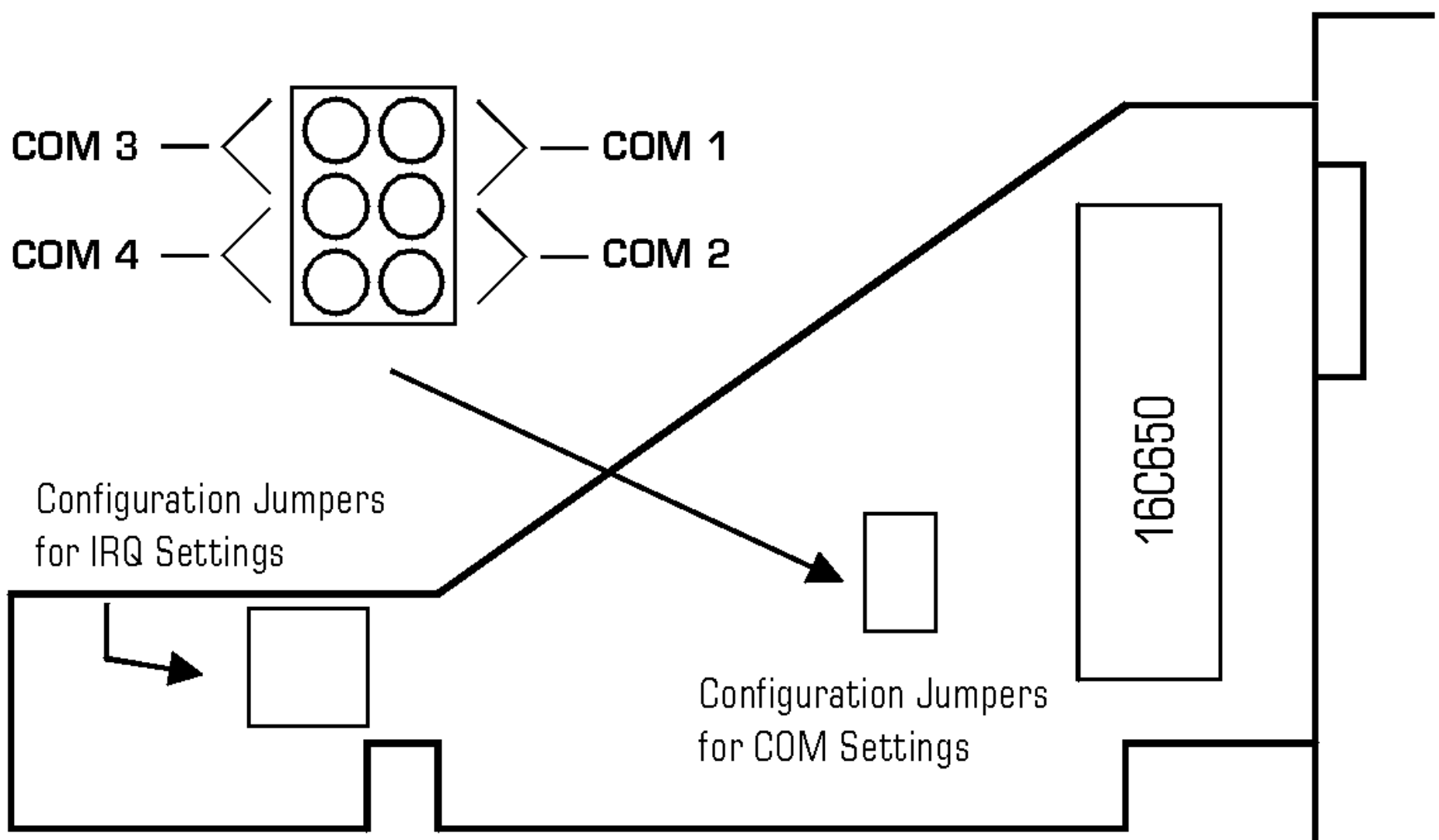
2.Determine which IRQ's (interrupts) are free in your system. Configure the Link-650 for an unused IRQ. Note: although some devices allow sharing of IRQ's, this is not recommended.
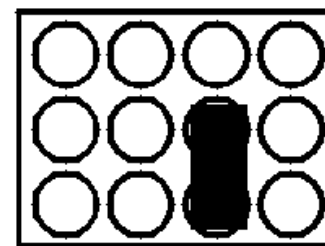
The following diagrams show the proper jumper positions for configuring the Link-650 for a given interrupt (IRQ):.
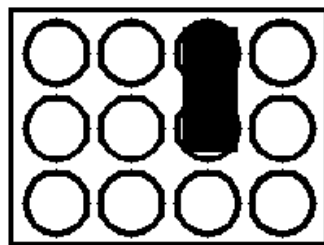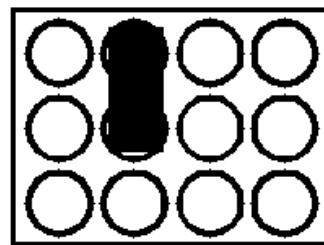
IRQ 4
(factory default)
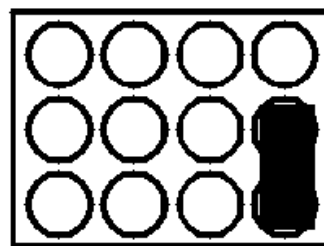
IRQ 3

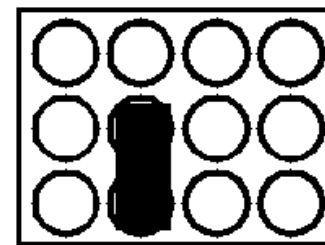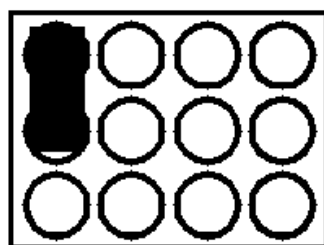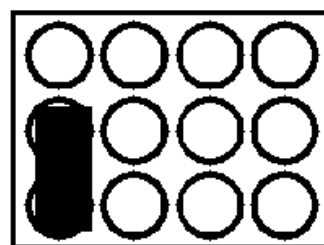IRQ 5

IRQ 2
(same as IRQ 9)

IRQ 10

IRQ 11

IRQ 12

IRQ 15

LAVA
LIFETIME
WARRANTY

Note: The Lava Link-650 is not a DOS product. To use a DOS Communications Program with the Link-650, open a DOS Window under Windows 3.1/3.11 or Windows95.

SOFTWARE INSTALLATION

Windows 3.1 & Windows for Workgroups 3.11

1. If you have previously installed a replacement Com Driver (e.g. Turbocomm, KingCom, etc.), remove it. The Lava Com Port Utility will not install correctly if the original Microsoft Comm.drv has been replaced.

2. While in Windows, insert the Lava Link-650 Diskette into your floppy drive..

3. From the Program Manager, select FILE, and choose RUN.

4. Type A:\Win.311\Setup & follow instructions on the screen.

5. After restarting Windows, double-click the Lava icon in Program Manager & select the Com Port which corresponds to the hardware setup of your Link-650

6. Select UART Type: 650 & the IRQ which corresponds to your hardware jumper setup.

7. Further information on FIFO Control, Flow Control, & Clock is available from the appropriate HELP button screens. To activate changes you must exit Windows & restart.

Note: Do Not install the Link-650 Windows 3.1/3.11 driver for use with Windows95 - see Win95 driver installation instructions.

Communicating faster than 115.2k bps in Windows 3.11

The Lava Link-650 supports data rates up to 460.8k bps. Windows3.11 however, does not inherently support rates above 115.2k bps. To access data rates higher than 115.2k bps in Windows 3.1/3.11 use the High Speed Clock option in the Lava Com Port Utility. Data rates selected through Windows software will then be multiplied by 4:

e.g. If High Speed Clock is enabled, selecting 57.6k bps in software will result in an actual rate of 230.4k bps (57.6k x 4)

Note: To access data rates above 115.2k bps, your modem must also support these higher data rates.

Windows 95 Driver Installation

1. After configuring the hardware jumpers, install the Lava Link-650 into any available ISA slot in your system & begin Win95

2. From the My Computer icon, choose Control Panel & click Install New Hardware.

3. Select the Auto-Detect option. Windows95 will detect the Lava Link-650 as a standard Com Port residing at the address and IRQ which you selected during hardware jumper configuration.

4. From Control Panel, Device Manager, select the Com Port which corresponds to your Lava Link-650.

5. When the Com Port Properties page appears select the Driver page & choose the Change Driver/Have Disk option.

6. Insert the Lava Link-650 driver installation diskette into your floppy drive and access the Win.95 subdirectory. Double-click on the icon LAVA.INF. The Link-650 driver will install automatically.

7. Configure Tx/Rx triggers, Flow Control, etc. as desired. For more information on optimum settings, click the right mouse button when accessing a particular setting.

Notes on the Lava Link-650 Win95 Driver

- The configuration options displayed in Device Manager may also be accessed directly from any Win95 communications software package by selecting Com Port Properties. Any updates made to the Link-650 configuration in this method will automatically update Device Manager.

- The Lava Link-650 supports data rates up to 460.8k bps. However, to access these higher data rates in Win95, the modem (or other device) driver (.INF file) must also support high speed data rates. If you select a data rate higher than 115.2k bps in Device Manager Com Port Properties, and then find your rate changed back to 115.2k bps, after connecting your modem and accessing Port Settings in the Modem Properties page, contact your modem manufacturer for an updated .INF file.

> If you mistakenly install the Lava Link-650 driver for Windows 3.1/3.11 and wish to use Win95, the Win3.11 driver must be completely removed before installing the Lava Link-650 Win95 driver.

Trouble-shooting the Lava Link-650

Before contacting Lava, please verify the following:

1. Is your modem receiving power?

2. Is your serial cable plugged into the Lava Link-650 and are you sure the cable itself has not been damaged?

3. Are there any Com address or IRQ conflicts?

4. Are you using the driver which corresponds to your modem?

For Windows 3.1/3.11 users:

5. Access Windows Terminal. Configure the program for the Com Port which corresponds to your Lava Link-650. Type the following command: AT&F - does the modem respond OK? If yes, the Lava Link-650 is communicating with the modem, and the problem lies in your software configuration.

For Windows95 users:

5. Double-click the Modems icon in Control Panel and switch to the Diagnostics Page. Click the More Info button to query the modem. If a response is received, the Lava Link-650 is operating properly.

Solutions to Common Problems:

Windows 3.1/3.11

· System hangs after the Link-650 is accessed

Verify that there are no IRQ conflicts.

· Link-650 is set for Com 1/2 - modem not responding.

Verify that you have no "hidden" Com Ports on the motherboard

which you believe to be disabled, but actually have not been. The

simple solution is to reconfigure the Link-650 for Com 3.

Windows 95

· Everything works fine initially, but after rebooting the PC,

Windows95 functions in "Safe Mode" only.

Symptomatic of a hidden IRQ conflict. Reconfigure the Link-650

for a different IRQ.

· Baud Rate selection of 230.4k bps or higher is reduced to

115.2k bps as soon as the modem is accessed.

Verify that the modem's .INF file supports 230.4k bps

Lava
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