MOXA®

CP-118U-I, CP-138U-I Smart Serial Boards
Quick Installation Guide

Second Edition, June 2008

1. Overview

The CP-118U-I and CP-138U-I are isolated Universal PCI multiport serial boards that are designed for POS and ATM applications and for industrial automation systems. Each board has a128-byte Tx/Rx FIFO, on-chip hardware and software flow control, and supports data transmission speeds of up to 921.6 Kbps.

CP-118U-I: 8 ports, RS-232/422/485, Universal PCI, 2KV isolation

CP-138U-I: 8 ports, RS-422/485, Universal PCI, 2KV isolation

2. Package Checklist

Before installing the board, verify that the package contains the following items:

- CP-118U-I or CP-138U-I Universal PCI board
- Document and Software CD-ROM
- Quick Installation Guide
- 5-year Product Warranty Statement

Please notify your sales representative if any of the above items are missing or damaged.

3. Hardware Installation Procedure

The serial board MUST be installed in the PC before you install the driver.

STEP 1: Power off the PC.

STEP 2: On the serial board, select the serial interface using the DIP switches as shown below:

Mode	S1	S2	S3*
RS-232*	---	---	ON
RS-422	---	ON	OFF
4-wire RS-485	ON	OFF	OFF
2-wire RS-485	OFF	OFF	OFF

*CP-118U-I only

STEP 3: Plug the board firmly into an open PCI or PCI-X slot on the PC.

STEP 4: Use the screw to secure the control board into place.

STEP 5: Attach the connection cables.

STEP 6: Power on the PC. The BIOS will automatically set the IRQ and I/O address.

P/N: 1802001182000

4. Software Installation

Do NOT install the driver until you have physically installed the board. Please refer to the previous section for instructions on installing the board in your PC. Refer to the Universal PCI User's Manual for detailed instructions on installing the drivers for this board.

Windows Vista (32-bit/64-bit)

1. After powering on your PC, Windows Vista will automatically detect the serial board.
2. Insert the Document and Software CD in your CD-ROM drive.
3. Select **Locate and install driver software(recommended)**.
4. When you receive a message stating "Windows needs your permission to continue", click **Next** to continue.
5. Select "**I don't have the disc, show me other options**".
6. Select "**Browse my computer for driver software(advanced)**".
7. For 32-bit (x86) systems, select the **\CP-118U Series\Software\Windows Vista\x86** folder on the CD. For 64-bit (x64) systems, select the **\CP-118U Series\Software\Windows Vista\x64** folder on the CD. Click **Next** to continue.
8. If you see a warning that the software has not passed Windows Logo testing, select **Install this driver software anyway**.
9. After the driver software has been installed, the installation wizard will guide you through the port installation, starting with port 0.
10. To verify successful installation, use **Windows Device Manager** and check under **Multi-port serial adapters and Ports (COM & LPT)** for any special marks, such as a question mark or exclamation point.

Windows 2003 and XP (32-bit/64-bit)

1. After powering on your PC, Windows 2003/XP will automatically detect the serial board.
2. Insert the Document and Software CD in your CD-ROM drive.
3. Select **Install from a list or specific location (Advanced).**
4. Select **Search for the best driver in these locations**, **Include this location in the search**, and click **Browse**.
5. For 32-bit (x86) systems, select the **\CP-118U Series\Software\Windows XP_2003\x86** folder on the CD. For 64-bit (x64) systems, select the **\CP-118U Series\Software\Windows XP_2003\x64** folder on the CD. Click **Next** to continue.
6. If you see a warning that the software has not passed Windows Logo testing, select **Continue Anyway**.
7. After the driver software has been installed, the installation wizard will guide you through the port installation, starting with port 0.
8. To verify successful installation, use **Windows Device Manager** and check under **Multi-port serial adapters and Ports (COM & LPT)** for any special marks, such as a question mark or exclamation point.

Windows 2000

1. After powering on your PC, Windows 2000 will automatically detect the serial board.
2. Insert the Document and Software CD in your CD-ROM drive.
3. Select **Search for a suitable driver for my device (recommended)**.
4. In **Optional search location**, select **specify a location**. Select the **\CP-118U Series\Software\Windows 2K** folder on the CD and click **OK** to continue.
5. If you see a warning that the software has not passed Windows Logo testing, select **Continue Anyway**.
6. After the driver software has been installed, the installation wizard will guide you through the port installation, starting with port 0. Be sure to install the software from the **\CP-118U Series\Software\Windows 2K** folder on the CD.
7. To verify successful installation, use **Windows Device Manager** and check under **Multi-port serial adapters and Ports (COM & LPT)** for any special marks, such as a question mark or exclamation point.

Linux (32-bit/64-bit)

1. Execute the following commands from the Linux prompt:

```
#mount /dev/cdrom /mnt/cdrom
#cd /
#mkdir moxa
#cd moxa
#cp /mnt/cdrom/<driver directory>/mxser.tgz .
#tar xvfz mxser.tgz
#cd mxser
#make clean; make install
#cd /moxa/mxser/driver
#./msmknod
#modprobe mxser
```

2. Use the Moxa diagnostic utility to verify the driver status:
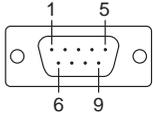
```
#cd /moxa/mxser/utility/diag
#./msdiag
```

3. Use the Moxa terminal utility to test the TTY ports:

```
#cd /moxa/mxser/utility/term
#./msterm #./msterm
```

5. Pin Assignments and Cable Wiring

The CP-118U-I and CP-138U-I each have a female DB78 connector. Cables with different connectors are available to help you connect your device to the board.
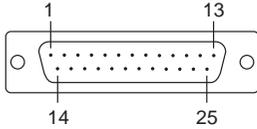
Male DB9 (CBL-M78M9x8-100)

Pin	RS-232*	RS-422 4-wire RS-485	2-wire RS-485
1	DCD	TxD-(A)	---
2	RxD	TxD+(B)	---
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	---	---
7	RTS	---	---
8	CTS	---	---

*CP-118U-I only

Male DB25 (CBL-M78M25x8-100)

Pin	RS-232*	RS-422 4-wire RS-485	2-wire RS-485
2	TxD	RxD+(B)	Data+(B)
3	RxD	TxD+(B)	---
4	RTS	---	---
5	CTS	---	---
6	DSR	---	---
7	GND	GND	GND
8	DCD	TxD-(A)	---
20	DTR	RxD-(A)	Data-(A)

*CP-118U-I only