



# CP\_114

> 4 RS422/485 PCI Card

## Benefits

**Affordable**

**Reliable PCI Card**

**Fully Medialon  
Manager Software  
compatible**

**4 RS422/485 Serial  
Ports**

## Applications

**Museums**

**Cabarets**

**Live Events**

**Cruise Ships**

**Staging**

The **CP\_114** series is designed RS422/485 industrial communication.

Each RS422/485 port can control up to 32 devices in a multidrop environment.

On-chip hardware flow control and built-in termination resistors guarantee data integrity and optical isolation and surge protection are available as options. All of this makes the CP-114 series highly reliable and suitable for critical show control applications.

**Part Number**

AK\_CP114 4 ports RS422 PCI Board with cables

**Hardware**

Connector Type Sub-D37

**Interface**

Bus PCI ver. 2.1.(32 bits)  
Serial RS-422/485  
No. of Ports 4  
Signals RS422: TxD +/-, RxD +/-, RTS +/-, CTS +/-, GND  
RS485: Data +/-, GND

**Performance**

Speed 50-921.6 Kbps  
Max. No. of Ports 16 (4 boards)

**Configuration**

Parity none, even, odd, space, mark  
Data Bits 5,6,7,8  
Stop Bits 1, 1.5, 2  
IRQ Assigned by BIOS  
I/O Address Assigned by BIOS

**Features**

Built-in termination resistors, no headache for impedance matching  
On-chip hardware flow control, no data loss

**Accessories**

Included: Cables

**CP\_144 Related Products**

Optional: Show Control Machine Pro (GD\_SCMPRO)

Show Control Machine III (GD\_SCMIII)

## Hardware Installation

The installation of the Industio CP-114 Series consists of hardware and software installation. The respective sections of the operating systems in the next chapter deal with the software installation.

### First Thing to Do: Interface Settings

Before installing the board into the slot, you should set all the jumpers to what you want. The default (factory) settings: Port 1, Port 2, Port 3 and Port 4 RS-485, Automatic Data Direction Control mode, no Termination Resistor, indicated as \*.

**JP5/6** Interface Selection Jumper for Port 1/2: Always on Left \* to RS-422/RS-485.

**SW1** RS-422/485 Selection Switch for Port 1/2/3/4:

**ON** \* Set the port interface to RS-485.

**OFF** Set the port interface to RS-422.

**SW2** Data Mode Selection Switch for Port 1/2/3/4:

(Valid if S1 is ON)

**ON\*** Set the RS-485 port to Automatic Data Direction Control Mode.

**OFF** Set the RS-485 port to By RTS Mode.

**JP1/2/3/4** Termination Resistor Port 1/2/3/4: (Valid if S1 is ON)

**Open** \* Not using Termination Resistor

**Short** Using Termination Resistor

Installing the Industio CP-114 Series Board  
Power down your desktop computer, open the case and locate an empty PCI slot (one of the short ones in white/beige color). Remove the slot cover bracket.

Unpack the Industio CP-114 board and remove the enclosed PCI controller card from the antistatic bag.

**Note:** standard precautions against static discharge should be taken when handling the card.

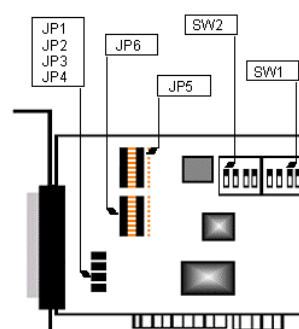
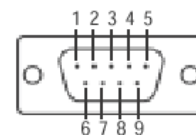
Install the card in the empty slot, fastening properly with the mounting screw.

Always use a fixing screw to fix the card, to avoid card damage.

Remove the fan-out cable (DB37 to DB9 x 4) from the bag and connect the 37-pin connector on the metal bracket of the PCI Card.

Close back the desktop computer, power on and proceed with software installation as described in the next section.

RS-422	RS-485
TxD-(A)	Data-(A)
TxD+(B)	Data+(B)
RxD+(B)	-
RxD-(A)	-
GND	GND
RTS-(A)	-
RTS+(B)	-
CTS+(B)	-
CTS-(A)	-



## Software Driver Installation

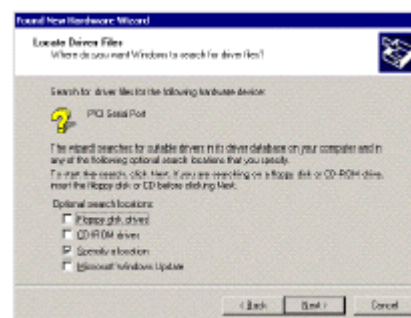
(Instructions for Windows 2000®)

First time Installation Procedure

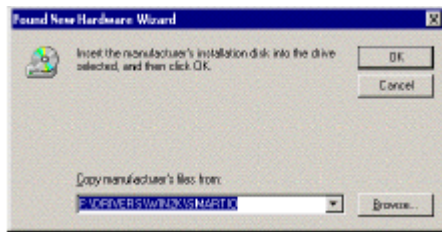
The driver is distributed as a dedicated CD-ROM.



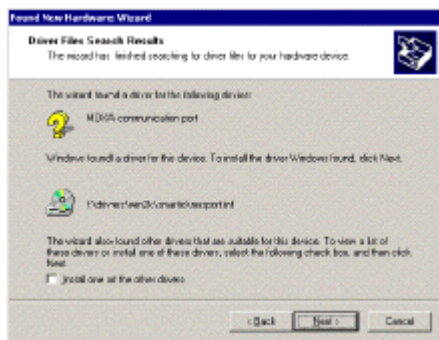
Upon the next start of Windows, a new hardware device will be detected. The installation will be performed automatically. Follow the on-screen instructions. When prompted by Windows configuration manager choose "Specify a location".



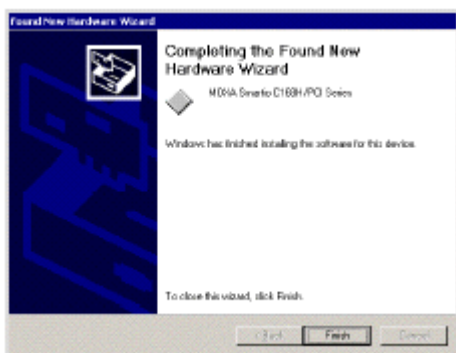
Insert the MOXA Driver CD-ROM and specify driver location for the Wizard. Assume that the CD-ROM driver letter is "F:", enter the driver location in the Windows and continue the installation procedure.



Follow the standard steps just taking care to always specify the CD-ROM (F:) as the source unit.



When Windows has finished the board's driver installation, click [Finish] to continue rest of driver installation.



The screen pops up "Found New Hardware Wizard" window to continue the rest of procedures.

After all files copy to the system, the window "Found New Hardware Wizard" displays "MOXA Port0". It means, Windows has finished the port0' driver installation and click [Finish] to install other ports' installation.



This procedure will take for a while depends on the number of ports you install.

The whole procedure is finished, when the "Found New Hardware" disappears.

If you would like to know the result of this installation, please refer to the chapter 6 "Check the Installation Result".



### Medialon MxM Installation

No specific MxM installation is needed.

**Note:** Refer to the MxM Help for Device creation and Commands.

## Check Installation Result

This section provides help for troubleshooting problems encountered in CP-104H PCI installation and configuration process. The most common problems are resolved following these steps:

- Make sure the card is properly seated in the PCI slot and the screw is fastened.
- Make sure the drivers are properly installed.
- Verify that the card is properly configured using Windows Device Manager. To get to the Device Manager, follow "Start" > "Settings" > "Control Panel" > "System" > "System Properties" > "Device Manager". If the driver installation for new added device is successful, you can see the Moxa board Industio CP104H in the "Multi-port serial adapter" folder.

You may expand the "Ports (COM&LTP)" to check the status of COM ports. If there's any mark on the icon, the installation may have problem.

If a conflict is present, try to uninstall, power down, power back on and reconfigure that card.

If this fails, refer to the MEDIALON support (as indicated in the final section of this manual).

## Diagnostic Utility Program

PComm Lite 2000 is a convenient diagnostic program for MOXA boards only, provides internal and external testing. This program can verify correct operation of both the H/W and S/W for all MOXA boards and ports.

To run diagnostic, click on "Start" > "Programs" > "PComm Lite 2000 Ver.1.0" > "PComm Diagnostic".

Please refer to online help of PComm Lite 2000 for more information.

## Medialon Support

For any problem with the installation of the MOXA PCI board, please use MEDIALON Support Hotline sending an email to [support@medialon.com](mailto:support@medialon.com)

Please make sure you indicate the following minimal set of information:

- Version of Medialon Manager software used
- Version of MxM used
- Model and serial number of the MOXA PCI card
- Brand and model of the PC
- Version of the Windows operating system (reported in the "Start" > "Settings" > "Control Panel" > "System" > "System Properties" > "General" window also reachable right clicking on "My Computer" and selecting "Properties")
- Is Windows "Device Manager" reporting configuration problems?
- Was the card tested on another PC?

For updated information please refer to our website, which is freely available at [www.medialon.com](http://www.medialon.com) where you will also find all updated Medialon Manager Software MxMs.

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